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ABSTRACT

This document contains abstracts of 167 studies in agricultural education completed during the period of July 1, 1980, to June 30, 1981. Thirty-one of the completed studies represent staff research, 87 represent master's studies, and 47 represent doctoral dissertations. Studies are arranged alphabetically by state and alphabetically by author within states. Each abstract presents the following information: author, title, type of study, institution, and summaries of purpose, methods, and findings. A compilation of 215 studies reported as being in progress during 1981-82 is also provided. These 86 staff studies, 71 master's studies, and 58 doctoral dissertations are arranged alphabetically by state and author within states. Author, title, type of study, and institution are cited. Other materials in the document are a subject index to the completed studies and tables showing the location of previous regional summaries of studies in agricultural education (found on microfiche in the ERIC system from 1968-74) and the location of previous national summaries of agricultural education (found on microfiche in the ERIC system from 1974-79). (YLB)

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SUMMARIES OF RESEARCH AND DEVELOPMENT ACTIVITIES IN AGRICULTURAL EDUCATION 1980 - 1981 United States of America

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December, 1981

CE 032 508

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PREFACE

This document represents the seventh annual national Summaries of Research and Development Activities in Agricultural Education in the United States of America. Personnel from states not included in this compilation are encouraged to submit summaries for succeeding issues.

The compilation includes abstracts of 167 studies completed during the period, July 1, 1980 to June 30, 1981. Thirty-one of the completed studies represent staff research, 87 represent master's studies, and 47 represent doctoral dissertations. Studies are arranged alphabetically by state and alphabetically by author within states. A subject index is included.

Studies reported as being in progress during 1981-1982 are also compiled. They are arranged alphabetically by state and by author within states. There are 86 staff studies, 71 master's studies and 58 doctoral dissertations in progress.

The compilation of Summaries of Research and Development Activities in Agricultural Education is an activity of the Research Committee, Agricultural Education Division, American Vocational Association.

The location of previous Summaries of Studies compiled by region and nationally is shown at the back of this publication.

The editor acknowledges and expresses gratitude to all of those who assisted with this effort. Special appreciation is extended to Dr. Charlie M. Curtis, Mrs. Mary McMinn, and Mrs. Florence Larguier for their assistance with this publication.

Joe W. Kotrlik

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SUMMARIES OF RESEARCH AND DEVELOPMENT ACTIVITIES
IN AGRICULTURAL EDUCATION, 1980-81

ALABAMA

IVERSON, Maynard J. and GRAHAM, C. Anne. "An Experimental Study of Campus-Based vs. Field-Based Microteaching in Agricultural Education at Auburn University." Staff Study, 1981, Auburn University, Auburn, Alabama.

Purpose. This study focused on microteaching--the scaled down teaching encounter widely used in teacher education programs--and sought to determine the effects of on-site videotaping during internship (student teaching) on the achievement of agricultural education students at Auburn (Alabama) University.

Method. The staff study was conducted during 1980-81 using a randomized, two group, modified time-series design. Two instruments developed at Auburn University were utilized: The Evaluation of Classroom Teaching form (ECT) and the Intern Evaluation Instrument (IEI). The 16 students were randomly assigned to two groups. Both groups received the on-campus microteaching treatment and observation (evaluation on the ECT); only the experimental group received videotaping and evaluation on the ECT during internship (the other group received traditional observation by the college supervisor).

Findings. The major null hypothesis of no difference in the final ratings of internship (on the IEI form) was accepted at the .05 level of confidence. However, the experimental group scored consistently higher on the IEI than the other group. Also, interns and cooperating teachers were positive toward in-field videotaping and evaluation, and secondary school students were not noticeably distracted. Five minor hypotheses were also tested.

ARIZONA

CONNORS, Jane Loewen. "A Study of the Educational Needs of the Small-scale Farmer in Cochise County, Arizona. Master of Science Thesis, 1981, The University of Arizona, Tucson.

Purpose. The purpose of this study was to determine the perceived educational needs in agriculture of the small-scale farmers in Cochise County, Arizona. Five objectives were listed which also sought the educational and experience background of these farmers and comparison of educational needs between small-scale farmers and other farmers.

Method. A random sample of 200 names were taken from the Cochise County, Arizona Extension mailing list of 600 names. These 200 people were sent questionnaires. Responses also classified the respondents into two groups--small-scale farmers and others.

Findings. A total of 27 educational needs were identified. Eighty-seven percent of the small-scale farmers felt that "methods of record keeping" was the most desirable educational need. The next three which ranked close to the farmers' interest were "family estate planning", "using energy efficiently" and "beef production". Four topics ranked low in interest which were those concerning vegetable, swine, dairy and poultry production. The level to which the small-scale farmer marked the 27 need topics reflected their present level of knowledge. Most need levels marked showed that the farmer had previous knowledge of the topic but still desired to learn more. Some areas were marked as lacking any previous knowledge but still a desire to learn more. These were mostly in newer concept areas, such as energy use and alternative fuel and crops. Over half of the small-scale farmers had been exposed to a college level learning situation. Fifty-three percent had been involved in a formal agricultural education course of study. Past non-formal education experience came mostly from agricultural work experience. Twenty-four percent claimed employment in agriculture as source of learning whereas fifty percent stated that being raised on a farm provided agricultural experience. Twenty-eight percent of small-scale farmers said that "finances" was their major problem in business. A few other areas under concern were time use, management and marketing. Small-scale farmers and the other farmers in the study exhibited different perceived educational needs. Business-related topics appear to be of the most concern to small-scale farmers, whereas topics related to technical skills were selected most frequently by other farmers.

MULCAHY, John Vance. "The Effectiveness of Reference Units of Varying Reading Difficulty in the Vocational Agriculture Classroom." Master of Science Thesis, 1981, The University of Arizona, Tucson.

Purpose. The purpose of this study was to assess the effectiveness of matching prepared student references on plant growth and development of two different reading levels with ninth and tenth grade vocational agriculture students enrolled in selected Arizona high schools according to their measured reading ability.

Method. Twenty-one classroom units were compared--ten in which all students used a Plant Growth and Development reference prepared at grade level eleven ("original reference") and eleven in which students were matched with the "original reference" or a "revised reference" prepared at grade level nine and one-half, depending upon their measured reading ability. Mean posttest scores for test and control classrooms were then compared.

Findings. Findings included: (1) On the average, Arizona vocational agriculture students participating in this study read at their grade level or one grade level above their actual grade; (2) Matching University of Arizona Plant Growth and Development references of two reading levels with students, according to their measured reading ability, resulted in an increase in student understanding of plant growth and development; but this increase was not statistically significant; (3) The procedures utilized in this study resulted in the development and validation of a criterion-referenced evaluative instrument on plant growth and development with a test reliability of .91; and (4) A significant, positive correlation was found between students' reading scores and their achievement on the cognitive examination.

SCHWENNESEN, Eric Paul. "A Case Study of Three Arizona Feedlots—Management for the 1980's." Master of Science Thesis, 1981, The University of Arizona, Tucson.

Purpose. The purpose of the study was to investigate and document by case study the current management practices of three Arizona feedlots of differing size. Three specific objectives were listed to identify management practices and establish their relationships to feedlot size.

Method. A descriptive survey interview was designed to study a non random, selected sample of three well-managed feedlots of differing size. The manager of each feedlot was interviewed using a standardized question format.

Findings. The primary motivators affecting cattle acquisition were profit potential and the need to keep the feedlots close to production capacity. The surveyed feed managers preferred cross-bred steers to other cattle options. Reduced-stress shipping was not a normal practice. Respiratory infection were the major cause of mortality of cattle; parasites were not a serious problem. Primary feeds utilized in the feedlots were alfalfa hay and milo; rumen efficiency enhancers and growth hormone implants were utilized routinely. Feedlot production reached mainly Southern California retail markets; documented consumer desires had a direct influence on production policies.

SCHWENNESEN, Jean Clarke. "Gel Electrophoresis for Determining Enzyme Differences in 'Superior Seedless' Grapes." Master of Science Thesis, 1981, The University of Arizona, Tucson.

Purpose. The purpose of the study was to determine if starch gel electrophoresis was specifically accurate to determine enzyme differences between closely related, but phenotypically different clones of grapes within a single cultivar.

Method. Berry samples from both 'Superior Seedless' and its clone were simultaneously subjected to starch gel electrophoresis and assayed for 12 different enzymes.

Findings. There were isozyme differences between 'Superior Seedless' and its clone in two enzymes. In the catechol oxidase enzyme assay, 'Superior Seedless' had an extra band present. The findings for esterase showed that the clone had two additional bands that were not evident in 'Superior Seedless'.

TAYLOR, Arnold. "Degree of Communication Between Three Hopi Reservation Actor Groups." Master of Science Thesis, 1980, The University of Arizona, Tucson.

Purpose. The purpose of the study was to measure the degree of agreement, congruency, and accuracy of the cognitive and perceptual communicative responses of the three Hopi Reservation actor groups relative to fifteen selected agricultural issues.

Method. The agricultural issues, which were eventually selected, were identified as being common to the three actor groups. The interview instrument, containing fifteen agricultural issues, was developed to measure communication between the three groups. In addition, the instrument was to measure the degree of agreement, congruency and accuracy of each groups' perceptions and cognition of the other two groups.

The three actor groups, classified as stockmen, council, and BIA-BLO, were selected by two methods. The larger group, stockmen, were randomly selected, while the two smaller groups, council and BIA-BLO, were purposively picked. Also, certain individuals from each of the actor groups were interviewed either personally or by mail.

Findings. The summary of findings were as follows: (1) Agreement, congruency and accuracy, as measured between the three actor groups' communication relative to the fifteen selected agricultural issues, ranged widely from zero to 100%; (2) There was a great deal of overestimation and underestimation in the measurement of congruency and accuracy between the actor groups; and (3) Generally, interaction between the three groups, relative to agreement, congruency and accuracy, was only average and left plenty of room for improved communication.

COLORADO

Park, R. Keith "Vocational Agriculture Teachers' Opinions Relative to Selected Agricultural Mechanics Competencies." Ph.D. Dissertation, 1981, Colorado State University, Fort Collins.

Purpose. The purpose of this study was to determine the importance of selected agricultural mechanics competencies in the preparation of vocational agriculture teachers. More explicitly, answers were sought to four major questions concerning the vocational agriculture teachers relative to: (1) What opinions do vocational agriculture teachers have relative to the importance of selected agricultural mechanics competencies identified and validated by the National Agricultural Occupational Study? (2) What capabilities do vocational agriculture teachers possess in performing the selected

agricultural mechanics competencies? (3) Where did vocational agricultural teachers obtain their capabilities to perform the selected agricultural mechanics competencies? (4) What attitudes do vocational agriculture teachers have toward their pre-service and in-service agricultural mechanics training programs?

Method. A five-page, 323 variable mail-out questionnaire was used to collect data from 175 randomly selected vocational agriculture teachers from Region II of the National Vocational Agriculture Teachers' Association. Statistical test used included one-way analysis of variance and Pearson Product Moment to determine differences and relationships.

Findings. Vocational agriculture teachers rate the selected agricultural mechanics competencies more important than the national study. Vocational agriculture teachers indicated a "proficient" to "above average" performance ability. Vocational agriculture teachers are obtaining competency in the agricultural skills primarily through two sources. When vocational agriculture teachers perform well, they believe the competency to be important. When vocational agriculture teachers perform with less competence, they have a lower opinion relative to the importance of the competency. It makes no difference where a vocational agriculture teacher is teaching relative to importance, the ability to perform and the source of the ability to perform the agricultural mechanics competencies. Vocational agricultural teachers evaluate their pre-service and in-service agricultural mechanics training programs above average.

FLORIDA

CARLTON, Kathleen Diane. "Perceptions of Master Gardeners Regarding the Training They Received and the Effectiveness of the Master Gardener Program." Master of Science Thesis, University of Florida, Gainesville, 1981.

Purpose. The central purpose of this study was to determine the effectiveness of the Master Gardener Program and the adequacy of the training the Master Gardeners received, based upon the perceptions of the Master Gardeners themselves in the three pilot counties of Brevard, Dade and Manatee. To achieve this purpose fifteen objectives were developed.

Method. Data were collected by a mailed, basically closed-form questionnaire. Of the 73 Master Gardeners in the population, responses from 66 Master Gardeners (90 percent) were received. Analyses of data included frequency distributions, percent responses, means, two-way contingency tables and comparisons of group means.

Findings. The major findings of this study were:

1. Master Gardeners rated their overall oral and overall written training very favorably. A majority also rated the overall usefulness of the topics and overall coverage of the topics covered in training very good or excellent.

2. A majority of the Master Gardeners evaluated their own effectiveness low in the areas of planning a plant clinic and conducting a plant clinic with most responses falling between the categories of fair to good. In the areas of answering questions over the telephone, in the county Extension office and in the plant clinics the majority rated themselves good or slightly above good.
3. Master Gardeners indicated a preference for more hands-on activities, more visits to nurseries, garden centers and related locations and more use of county Extension personnel within their own counties to aid in their training.
4. There appears to be little or no association between whether or not the respondents had formal training in horticulture, their sex, whether or not the respondents had past or present employment in a horticultural occupation or their educational level and how they perceived the overall oral and overall written training they received prior to becoming Master Gardeners.
5. There appears to be little or no appreciable variation between the Master Gardeners' age, educational level, previous formal training in horticulture, or sex with regard to how they rated their training in terms of overall usefulness of the topics and overall coverage of the topics.
6. There appears to be some variation between whether or not the Master Gardeners had been employed in a horticultural occupation and how they rated the overall usefulness of the topics and overall coverage of the topics with both of these areas being rated higher by those never employed in a horticultural occupation.

DEREINDA, Ridwan. "A Communication Process in the Adoption of a Farm Innovation." Master of Science Thesis, 1980, University of Florida, Gainesville.

Purpose. The purpose of this study was to determine the communication channel(s) through which farmers learned about an innovation (legume inoculation) and to identify some of the factors related to the innovation-adoption process.

Method. A closed form questionnaire was mailed to 58 soybean producers in Gilchrist county, Florida. Responses were received from 38.

Findings. The findings indicated that agri-chemical dealers were the most frequently cited channel used by farmers to learn about the innovation. Additional results revealed that most respondents had passed the first four stages of the innovation adoption process (awareness, interest, evaluation and trial), however only slightly more than half had reached the adoption stage. Generally respondents with a shorter adoption period were younger, more highly educated, had higher levels of income and greater exposure to newspapers.

PAULSON, Curtis Edward. "Factors Influencing Florida Vocational Agriculture Students to Join or Not to Join the Future Farmers of America." Master of Science Thesis, University of Florida, Gainesville, 1981.

Purpose. The central purpose of this study was to determine and describe factors influencing vocational agriculture students to join or not to join the Future Farmers of America (FFA), based upon the perceptions of 405 students enrolled in the 25 randomly selected first year vocational agriculture classes in Florida high schools. To achieve this purpose, five objectives were developed.

Method. Data were collected through a mailed student questionnaire administered by the teachers. A total of 405 usable questionnaires were returned from 340 students enrolled in 21 classes of Fundamentals of Agricultural Occupations and 65 students enrolled in 3 classes of Applied Principles of Agricultural Occupations. The students were enrolled in classes of 25 ranromly selected teachers of which 24 (96 percent) responded. Statistical analyses of the data included frequency, percent, means, Chi-square, two-way contingency tables, and the t-test of group means relating to student responses for each item.

Findings. The major findings of this study were:

1. Slightly less than one-half (48.6 percent) of the students were members of the FFA and 51.4 percent of the students were nonmembers of the FFA.
2. Almost three-fourths (72.6 percent) of the students were male and 27.4 percent were female. There was no association between the sex of the student and membership status.
3. Seventy-five percent of vocational agriculture students live on less than five acres of land.
4. FFA members are more likely to plan to work in occupations related to agriculture than nonmembers.
5. Vocational agriculture students primarily join the FFA because it teaches them agriculture and leadership. Furthermore, they want to participate in the activities.
6. Regarding membership status, vocational agriculture students were not primarily influenced by parents, friends, brother(s), sister(s), or because the FFA was required.
7. There is no single reason why vocational agriculture students did not join the FFA. However, the teacher/advisor was not the primary reason the nonmembers did not choose to join the FFA.
8. Approximately 25 percent of the students enrolled in vocational agriculture plan to work in some area of agriculture.
9. The vocational agriculture students like their vocational agriculture teachers and think the teachers are competent in their chosen disciplines.

ILLINOIS

Southern Illinois University

LI, Jill Yan-Ru. "The Development of a Model of Task Analysis for the Vocational Education of the Secondary EMH Students in the Field of Horticulture." Master of Science Thesis, 1980, Southern Illinois University, Carbondale.

Purpose. The purpose of this study was to develop a model of task analysis for vocational education of secondary EMH students in the field of horticulture.

Method. The first step of the task analysis was to define the jobs and identify the functions of each. Tasks were listed with information obtained from references, expert inputs, and observation. The tasks were validated by surveys, observation, and simulation. Next, identification of and understanding such things as manipulative skills, attitudes and interest, physical requirements, and working conditions needed for the composite learner were studied. The tasks were broken down into more specific steps and processes for the EMH students, and the instructional process was developed from these materials.

Findings. Opportunities for closer cooperation between vocational educators and special educators should be enhanced. The vocational teachers might be helped to teach special needs students effectively by adopting the task based curriculum. The writing of the short and long term goals for IEP can be more easily derived from the detailed tasks.

MCCARTER, James R. "A Comparison of the Mailed Questionnaire and Personal Interview Methods of Data Collection for Curriculum Development in Occupational Education." Master of Science Thesis, 1980, Southern Illinois University, Carbondale.

Purpose. The purpose of this study was to make comparisons of data gathering methods in areas of agriculture other than previously studied.

Method. The study began with the selection of an advisory board for each of the areas of interest. A list of tasks were identified and defined, with the help of the advisory committee. A pre-test of the survey instrument was conducted by the project interviewers, and then the advisory board randomly selected the businesses. All data was collected by personal interview and a mailed questionnaire.

Findings. The personal interview method of data collection is superior to a mailed questionnaire method. A larger percentage of the population showed a willingness to cooperate and give the information necessary to make the study successful. The mailed questionnaire method of data collection proved to be time consuming in preparing follow-ups, even after being promised they they would be glad to participate. This study had a return rate of 75 percent of the grain elevators and 55 percent return for the meat processors after considerable persuasion by the researcher. Upon comparing researcher and secretarial time, cost of mailing including return envelope, it was just as expensive to conduct a mailed questionnaire research of this type, as the personal interview.

MURRAY, Michael C. "An Analysis of the CETA-Agriculture Training Program Follow-Up Survey." Master of Science Thesis, 1981, Southern Illinois University, Carbondale.

Purpose. The purpose of this study was to determine the effectiveness of the Southern Illinois University/CETA Agricultural Training Program as a transportable training model for youths and young adults with special needs.

Method. A follow-up survey was conducted of the former training program participants. An approved questionnaire was administered to 18 of the 36 program clients. The methods of questionnaire delivery were the personal interview, the mailed questionnaire, and the telephone interview.

Findings. The study found the training model was effective in preparing individuals for the world of work. Of the 18 persons responding to the questionnaire, 55 percent indicated some form of employment--either part of full time. Job retention skills were ranked as very important by the participants.

OHLEY, Kristi. "Agriculture Careers Interest Survey for First Year High School Agriculture Students." Master of Science Thesis, 1981, Southern Illinois University, Carbondale.

Purpose. The purpose of this study was to identify the interests of first year agriculture students in the seven identified areas of agriculture through the use of an interest inventory.

Method. The method used for obtaining the study population was a convenience sample. Three rural Southern Illinois schools were chosen to complete the survey, which consisted of twelve job-related questions for each of the seven agriculture areas for a total of 28 questions. Mailed questionnaires were used to collect all data utilized in this study.

Findings. On and off-farm students were compared and major interest areas determined. On-farm students indicated mechanics as their first choice, followed by (in order) Supplies and Services, Production, Resources, Forestry, Products, and Horticulture. Off-farm students indicated Production and Forestry as their first choice, followed by (in order) Supplies and Services and Mechanics, and Horticulture. Resources and Products were not indicated by students. Male and female scores were also compared. Male scores indicated mechanics as first choice, followed by Supplies and Services, Production, Resources, Forestry, Horticulture, and Products. Females chose Production first, followed by Mechanics and Forestry. Supplies, Products, Horticulture, and Resources were not indicated as interest areas.

POOR, David. "Determination of the Level of Knowledge Possessed by Vocational Agriculture Teachers Concerning Classroom Liability." Master of Science Thesis, 1981, Southern Illinois University, Carbondale.

Purpose. The purpose of this study was to determine the level of knowledge possessed by a group of secondary vocational agriculture instructors concerning specific relevant subtopics of liability as related to the educational setting.

Method. A questionnaire was developed based on four common, liability-related problem areas. The questionnaire was distributed to an available sample of 190 Illinois vocational agriculture teachers.

Findings. The vocational agriculture teachers answered 68.2 percent of the questions correctly. The problem area that related to teachers' duties when using materials and equipment was the most misunderstood. The second most misunderstood problem area concerned teachers' sources of legal protection. Corporal punishment was the third most misunderstood. Finally, teachers' supervisory responsibilities was the least misunderstood of the problem areas.

RENEAU, Fred W.; Stitt, Thomas R.; and Legacy, James W. "EPA - Agricultural Curriculum for Vocational Agricultural Dissemination - Phase II." Southern Illinois University, Carbondale.

Purpose. The purposes of this study were to develop a pesticide use and water quality media (slide/tape) and a fertilizer use booklet for use in vocational agriculture programs in Illinois.

Method. The pesticide media was reduced to 80 slides and the tape reduced to approximately 18 minutes. Consultants from the pesticide industry and vocational agriculture teachers were involved in the media development. The 'Fertilizer Use and Water Quality Booklet' was developed with the assistance of commercial fertilizer, vocational agriculture, and agriculture regulatory personnel in Illinois.

Findings. A 'Pesticide Use and Water Quality' slide/tape media composed of 80 2x2 slides was developed and is available to all Illinois vocational agriculture teachers. A 'Fertilizer Use and Water Quality Booklet' was developed and is available to Illinois vocational agriculture programs from the Illinois Institute of Natural Resources.

RICHARDS, Janise. "A Determination of the effectiveness of Slide/Tape Media in the Vocational Agriculture Classroom." Master of Science Thesis, 1981, Southern Illinois University, Carbondale.

Purpose. The purpose of this study was to determine the effectiveness of slide/tape media in comparison with printed material on the cognitive learning of new agriculture curriculum material.

Method. Five high school and five community college agriculture classes were presented the "Pesticide Use and Water Quality Booklet" with a lecture. Another five high school and five community college agriculture classes were presented the "Pesticide Use and Water Quality Slide/Tape." Identical pretest and posttest questions were compared for both groups.

Findings. With a gain score t value of 1.63, a difference between the two methods was indicated. This difference was not significant at the .05 alpha level. Students' cognitive achievement level did not differ significantly when using the printed material/lecture versus the slide/tape media.

SWIGART, Amy C. "A Model for Developing Competency-Based Curriculum in Horticulture." Master of Science Thesis, 1980, Southern Illinois University, Carbondale.

Purpose. The purpose of the study was to develop a systematic and organized curriculum development plan for vocational education to provide students with relevant training in changing and emerging occupations.

Method. A task analysis questionnaire was completed for the retail floral business by the two university project interviewers. Ninety-seven tasks were identified as performed in the following five functional work categories: Production, Sales, Office, Maintenance, and Management. These task statements had to be ranked by importance, and were put into one of the following five categories: essential, important and useful. Knowledge and skill statements were written for each task, and then a task learning sequence for the proposed curriculum was developed. The tasks in the curriculum outline, when combined with the knowledge and skill statements, produced the basis for teaching materials.

Findings. The activities in this study indicated the need for a procedural model that could be used for the development of traditional teaching materials from a task analysis. Currently, there is a shortage of relevant teaching materials in horticulture and other new career areas. The activities conducted in this study also suggested that teachers may be the best developers of local curriculum. Some teachers have developed their own teaching materials by using their teaching ability and their understanding of local needs. However, few guidelines on curriculum development have been available for teacher use. For this reason, the procedural model was designed for teacher use, as well as for use by traditional curriculum developers.

VAHLKAMP, Denise L. "Evaluating the Need for Competency Based Instruction for Beginning Meat Processors." Master of Science Thesis, Southern Illinois University, Carbondale.

Purpose. The problem was to determine what should be taught to potential workers of the meat processing industry in Illinois.

Method. Personal interviews were conducted with a stratified and selected sample of Illinois meat processors. Information obtained from the series of 16 interviews served as the basis for findings.

Findings. From a list of 97 work competencies, 11 were commonly identified as being performed by beginning workers, 45 by advanced workers, and 41 by the manager or owner. A suggested approach for further development was to teach beginning competencies at the high school level and others at the community college or university level.

WHERRY, Ross W. "Leadership Education Materials for Secondary Schools." Master of Science Thesis, 1980, Southern Illinois University, Carbondale.

Purpose. To develop lesson materials on the tactics a leader could use to handle various situations which commonly face high school student leaders.

Method. The study sample was drawn from a small rural high school in Southern Illinois. The participants of the study were members of the Peer Facilitation Class, and were asked to respond on a Likert scale to fourteen questions involving leadership ability. Participants also responded to cognitive, affective, and behavioral aspects of the materials studied and used. Cognitive responses were recorded as knowledgeable or unknowing; affective responses were rated as favorable or unfavorable, and the student's behavioral use of cooperative techniques was rated as high, medium, or low.

Findings. A curriculum of theoretical and applied leadership training produced constructive, behavioral changes in a wide majority of students. A successful leadership training program should include theoretical background material and a number of significant lifelike situations for application of theory. Social and cultural constraints should be considered when designing or adapting a local training program. A majority of high school students considered cooperation to be a useful and important leadership tool.

University of Illinois

WARNER, RICHARD E. "Factors Affecting the Adoption of Wildlife Conservation Practices by East-Central Illinois Farmers and Their Educational Implications." Doctor of Philosophy Thesis, 1981, University of Illinois, Champaign-Urbana.

Purpose. The purpose of this study was to identify factors which influenced participation by farmers in a roadside management program for wildlife, and to suggest an educational strategy for enhancing participation by farm operators.

Method. Participation in roadside management by farmers was monitored from 1970-79. In 1979, an instrument was developed and administered to 44 farm cooperators on the test area, and 52 farm operators on a control area. The general categories of factors operationalized from the instrument were: (1) Attitudes and Knowledge Regarding Wildlife, Pheasant Ecology, and Use of Roadsides, (2) Personal and Farm Characteristics, and (3) Perceived Advantages of Managed Roadsides as a Farm Innovation. Discriminant analysis was employed to describe the nature of group differences.

Findings. Group differences among farmers on the test and control areas indicated that for individuals on the test area, changes in the cognitive and affective domains were not common as a result of the initial educational intervention or involvement with the roadside management program. On the test area, approximately one-fourth of the initial cooperators were classified as Participants, approximately one-half Vascillators, and approximately one-third Nonparticipants according to their long-term delayed roadside mowing behavior. Participants, compared with other groups, demonstrated relatively correct knowledge regarding the status of wildlife populations and principles of wildlife management. However, there was not evidence that long-term participation was the result of a wildlife-related value orientation. The findings are compared with previous diffusion model research. Educational recommendations are made.

ETHRIDGE, JAMES I. "An Analysis of Demographic Variables and Their Relationships to Selected Teaching Activities of Agricultural Education Students and Graduates From Four Universities in Illinois." Doctor of Philosophy Thesis, 1981, University of Illinois, Champaign-Urbana.

Purpose. The purpose of this study was to gather demographic information about Agricultural Education students and graduates and their perceptions concerning the effectiveness of the teacher preparation curriculum and to ascertain whether or not selected demographic variables were related to the importance of selected teaching activities and students' skill level for these activities.

Method. The source of data used in this study was the 1979 survey of 315 juniors and seniors and graduates from the previous five years in Agricultural Education curriculums in four Illinois universities.

Dependent variables for this study were formed from the mean scores from the importance scales of each of the 24 selected teaching activities, the present skill mean scores of each of the 24 selected teaching activites, and the graduate past skill mean scores of each of the 24 selected teaching activities. The 19 independent variables were formed from the demographic factors obtained through the questionnaire.

Findings. The results do not support the hypothesis that there was no significant different ($\rho \leq .01$) in the expressed importance of certain selected teaching activities based on demographic factors of the respondents. Those factors which identified significant differences ($\rho \leq .01$) were: sex, community college transfers, subject area speciality, farm work experience, enrollment in FFA, enrollment in high school agriculture, graduates not teaching, preparation satisfaction, enrollment in 4-H, junior high school agriculture, and career satisfaction. In addition, the results do not support the hypothesis that there was no significant difference ($\rho \leq .01$) in the expressed present skill level of certain selected teaching activities based on demographic factors of the respondents. The thirteen demographic factors which identified significant differences ($\rho \leq .01$) were: sex, graduates, community college transfers, subject area speciality, farm work experience, non-farm work experience, enrollment in FFA, enrollment in high school agriculture, graduates not teaching, enrollment in 4-H, student teaching satisfaction, career satisfaction, and student status. Further, the results do support the hypothesis that there was no significant difference among respondents with zero to five years teaching experience and the expressed present skill level and the expressed past skill level in each of the 24 selected teaching activities.

BENSON, PAUL W. "Comparison of Affective Work Competencies and Selected Background Experiences of Students, Graduates and Supervisors in Agricultural Mechanization." Doctor of Philosophy Thesis, 1981, University of Illinois, Champaign-Urbana.

Purpose. The purpose of this study was to compare the rated level of affective work competencies and selected background experiences of students, graduates, and industry supervisors of Illinois community college agricultural mechanization programs.

Method. Illinois community colleges with approved agricultural mechanization programs were selected to provide a population of 922 subjects. The names of the thirteen colleges were arranged in a random order and eight were chosen from the list to obtain a sample of sufficient size. Affective Work Competencies Inventories (AWCI) were then administered to a sample of 646 subjects from the eight colleges and responses were categorized by selected background experiences. A total of 506 people responded, thus making the return rate 78.33 percent. The two independent variables of the ex-post-facto design were: three role classifications (student, graduate, and supervisor) and three background experiences (FFA membership, agriculture course enrollment, and work experience.) The fifteen dependent variables were the affective work competency clusters (ambitious, cooperative, adaptable, considerate, independent, accurate, careful, pleasant, follows direction, emotionally stable, perservering, neat, dependable, efficient, and dedicated.) Data were analyzed by an analysis of variance (ANOVA) statistical procedure and a multivariate analysis of variance (MANOVA) procedure with a significance level of .05.

Findings. (1) There were significant differences in affective work competency cluster scores found among the role classifications of students, graduates, and supervisors. Supervisors generally scored higher in the possession of these competencies than the students and graduates. (2) There were significant differences found between the respondents' scores who had FFA membership in high school over those who had not. (3) There were significant differences found between respondents' scores who had been enrolled in agriculture courses in high school over those who had not. (4) Only one significant difference was found in respondents' scores who had various lengths of work experience, probably due to the fact that most of the respondents had less than five years' work experience.

HARRIMAN, CLARK THOMAS. "An Analysis of Needs Assessment Procedures for Occupational Education Programs in Illinois Community Colleges." Doctor of Education Thesis, 1981, University of Illinois, Champaign-Urbana.

Purpose. The purposes of this study were to: (1) identify groups and/or individuals contacted by the occupational program directors in Illinois community college districts who help identify educational needs; (2) identify the needs assessment technique(s) used; and (3) ascertain how they determined the effectiveness of the needs assessment technique(s) used.

Method. A questionnaire was developed, pre-tested, and mailed to all program directors in occupational education in Illinois community colleges. Descriptive statistics, including frequency distributions, arithmetic means and standard deviations were computed. Data were organized in contingency tables.

Findings. Directors of occupational education programs indicated that the most valuable source of consultation was the citizens advisory council, followed by past students, input from college faculty and staff, employers, and associations and organizations.

The needs assessment technique, i.e., the method ranked as best by these directors to contact the people of the college district, was the citizens advisory council, followed by the responses to present classes; personal contacts; talking informally to community leaders, practitioners, and service providers; and determining needs based on college staff experience and expertise. Most directors reported using course enrollments, student evaluations and attrition rates to evaluate the efficiency of their needs assessment techniques.

HEMP, PAUL E. and COURSON, ROGER L. "Illinois Core Curriculum in Agriculture - Phase II." Staff Study, 1981, University of Illinois, Champaign-Urbana.

Purpose: The purpose of this study was to develop a core curriculum for freshmen or beginning students enrolled in agricultural occupations programs in rural and urban schools.

Method. Two advisory committees were used to determine the content for a rural and a metropolitan core program in agriculture. Thirty-eight instructional packets were developed and field tested in five metropolitan schools. Twenty-six instructional packets were developed and field tested in fifteen rural high schools. The field test teachers evaluated the packets and provided the project staff with suggestions for revising them. The Core I materials were printed and disseminated through a series of twenty-two teacher workshops.

Findings. Approximately 350 teachers attended the Core Curriculum Workshops and received instruction on how to use the core materials in developing local programs of instruction. Initial teacher reaction to the core material has been very positive. It appears that the core curriculum program is needed in Illinois and that it will have a strong impact on agricultural occupations programs. The project will be continued in order to develop Core II materials during Phase III.

TUCKER, SONNY WILLIE. "A Study of School Farm Laboratory Instructional Resources as Data Base for Improving Agricultural Science Programs in Secondary Schools of Sierra Leone." Doctor of Education Thesis, 1981, University of Illinois at Champaign-Urbana.

Purpose. The purposes of this study were: (1) to describe and analyze the present status of the agricultural science programs and the nature of school farm laboratory instructional resources in secondary schools, and (2) to identify practices and diagnose problems associated with the organization and operation of school farm laboratories.

Method. The sample included 45 of the 85 agricultural science departments. The respondents included 45 principals, 45 heads of departments, and a random sample of 428 Form Five students. Five officers in the Ministry of Agriculture and Forestry and one officer in the Ministry of Education were also interviewed. The collection of data was face-to-face interview utilizing survey inventory schedule questionnaires. The data from the secondary school respondents were organized and analyzed using frequency counts, percentages, means, graphs and t-test.

Findings. The data showed that: (1) A majority of the agricultural programs are offered by government and government assisted, religious-affiliated and unaffiliated schools which are fairly evenly distributed in Sierra Leone. (2) Seventy-six percent of the agricultural science programs were established between 1968 and 1977. Most of the programs are operated by day and a combination of boarding with day schools, (3) The total enrollment ranged from 100 to 1,000, with a mean total enrollment of 466.6 students, (4) The number of agriculture teachers employed per department ranged from one to five, (5) Fifty-five percent and 28.0 percent of the agricultural teachers were trained at Njala University College amd Milton Margai Teachers College respectively, (6) In 82.0 percent of the agriculture departments, teachers did not receive agricultural science teaching allowance, (7) Seventy-eight percent of the principals and 73.3 percent of the heads of departments had no written and documented national policy that guided the teaching of agricultural science except a school certificate syllabus, (8) Most of the school farms ranged from one to eleven acres, with a mean of 5.0 acreas, (9) A variety of crops were grown and pigs and poultry raised on the farms, (10) School farm operational problems included lack of funds and other resources, (11) All the principals and 98.0 percent of the heads of departments would recommend school farm organization and operation to all secondary schools, (12) The secondary school respondents disagreed in their perceptions of the achievement of the objectives of the agricultural science program and school farm laboratory.

INDIANA

CHAMBERLAIN, Julie. "A Description of the Indiana Master Gardener Program: An Assessment of its effectiveness as an aid to Extension Agents." Master of Science Thesis, 1981. Purdue University, West Lafayette.

Purpose. The purpose of this study was to determine the effectiveness of the master gardener program.

Method. A questionnaire was developed and mailed to 168 master gardeners and 10 extension agents involved with master gardeners. A seventy percent response rate was obtained.

Findings. In general, master gardeners were pleased with the program. The agents indicated over 3,000 hours of volunteer work had been provided by master gardeners. The master gardeners indicated there could be a closer working relationship between the agents and master gardeners. Some data was hard to collect because of the lack of documentation of master gardener activities.

PETERS, Jerry L. and MOORE, Gary E. "A Comparison of Two Methods of Providing Laboratory Teaching Experience for Student Teachers in Agricultural Education." Staff Study, 1981, Purdue University, West Lafayette.

Purpose. The purpose of this study was to compare students participating in reflective teaching with students participating in microteaching on five variables. The variables were perceptions of teaching ability, attitudes toward teaching, perceptions about teaching, student teaching grades, and attitudes toward the teaching laboratory.

Method. Students (N=44) in the teaching methods class were randomly divided into two groups. Each Friday during the semester one group participated in microteaching while the other group participated in reflective teaching. The students completed various instruments designed to measure the variables of the study before and after the experiment.

Findings. There were no statistically significant differences between either group on any of the variables. This indicates reflective teaching could be used in place of microteaching.

RICHARDSON, W. B., KLEIN, C. J., and RIGGS, K. S. "Garden Center Salesperson, Garden Center Worker, and Landscape Designer; A Catalog of Tasks, Performance Objectives, Performance Guides, Tools and Equipment." Staff Study, 1981, Purdue University, West Lafayette.

Purpose. The purpose of this study was to develop a V-TECS Catalog for the three job titles: Garden Center Salesperson, Garden Center Worker, and Landscape Designer.

Method. The procedures detailed in the "V-TECS, Vocational-Technical Education Consortium of States Technical Reference Handbook, Revised October 1978," were followed in the investigation.

Findings. One hundred and eight tasks were identified for the three job titles as important and performance objectives, performance guides (and where process was identified as central to the task) performance checklists were developed for each of the tasks.

IOWA

ALMAZAN, Isaias, Jr. "Adoption of Supervised Occupational Experience Curriculum Materials by Iowa Vocational Agriculture Teachers." Doctor of Philosophy Dissertation, 1981, Iowa State University, Ames.

Purpose. The purpose of this study was to determine to what extent supervised occupational experience instructional materials (SOE packet) were being utilized, and to identify the teacher and situational variables that inhibited or stimulated diffusion of the materials into vocational agriculture programs.

Method. Data were collected from a representative sample of vocational agriculture instructors in Iowa during the beginning of the 1980-81 school year, two years after initial introduction of the SOE instructional materials. The instruments used were: (1) a questionnaire to collect personal and situational data, (2) a diffusion scale designed to produce a summated score to measure the degree of utilization of the SOE packet by the instructors, and (3) an attitude scale designed to yield a summated attitude score to measure teacher attitude toward vocational agriculture supervised occupational experience programs.

Findings. (1) A significant relationship existed between teacher attitude and diffusion of the SOE packet. (2) The relationship between administrators' attitude toward SOE as perceived by the instructors and diffusion of the SOE packet was significant. (3) A significant relationship existed between farm enrollment and school enrollment. (4) The six variables studied accounted for only sixteen percent of the variation in the diffusion of the SOE packet. Therefore, these variables were weak in predicting the diffusion of the SOE packet.

EVERETT, Lawrence B. "Development and Evaluation of a Safety Education Workshop for Programs of Vocational Agriculture." Doctor of Philosophy Dissertation, 1981, Iowa State University, Ames.

Purpose. The major purpose of this study was to develop and test the effectiveness of an in-service safety workshop for vocational agriculture teachers in improving laboratory safety scores. The specific objectives of this research were to: (1) develop the in-service safety workshop curriculum, (2) determine the relationship between selected facility variables and laboratory safety scores, (3) determine the relationship between selected vocational agriculture program characteristics and laboratory safety scores, (4) determine the relationship between selected vocational agriculture teacher characteristics and laboratory safety scores, (5) determine the effect of the in-service workshop, as an instructional technique, on laboratory safety scores, and (6) determine the interaction between evaluator type and treatment group.

Method. The experimental treatment group of ten schools attended a 1½ day safety education workshop. The workshop was designed to provide instruction to vo ag teachers on the need for laboratory safety, the recognition of health and safety hazards, and techniques and materials to improve the laboratory safety score. Laboratories from the control group (ten schools) and the experimental group (ten schools) were independently evaluated by

the teacher from each school and the researcher. The instrument used to gather data was developed by Everett (1980) and revised by the researcher. Analyses of data included: frequencies of responses, ranges, means, standard deviations, product moment correlations, t-tests. and analyses of variance.

Findings. Five instrument items having the highest safety priority index for both treatment groups were: G.F.C.I. available for outdoor use, soap suds cup available for testing gas leaks, respirators provided for use, each tool provided with a "Lockout System," and safety rules posted near each stationary tool. No significant differences were determined in mean laboratory safety scores when measured by: (a) teacher scores, (b) safety specialist (researcher) scores, and (c) combined scores. No significant interaction existed between evaluator type and treatment group in mean laboratory safety scores. The five week period between the treatment (safety workshop) and the laboratory safety evaluations may not have been sufficient to allow the experimental group participants to apply what was learned in the workshop.

EVERETT (MOORE), Susan F. "The Importance and Implementation of Management Functions and Activities in Agricultural Teacher Education Programs." Doctor of Philosophy Dissertation, 1981, Iowa State University, Ames.

Purpose. The primary objective of this study was to determine the level of importance and the level of implementation of selected management activities in agricultural teacher education programs as perceived by program leaders and program staff.

Method. Fifty agricultural teacher education program leaders and 50 agricultural teacher education program staff (100 percent), completed an instrument assessing the level of importance and the level of implementation of five management functions including: planning, organizing, staffing, directing, and controlling. Each of these functions contained four management activities for a total of 20 items rated using a nine-point Likert-type scale. The instrument also asked respondents to rank the importance of five management functions and ten management activities. Statistical procedures used in analyzing the data included frequencies, central tendencies, paired t-tests and one-way analysis of variance.

Findings. The agricultural education program leaders and staff agreed that all five management functions and the 20 management activities were important in managing an agricultural teacher education program. However, the agricultural education program staff believed the management functions of staffing, directing, and controlling, and management activities in all five functional areas, were implemented at a lower level in their agricultural teacher education programs than did the program leaders. Furthermore, both groups generally agreed that the functions of planning and staffing were the most important functions; and that planning programs were of more importance than the management activities of organizing and using an advisory committee, and instructing new persons about policies and procedures.

HAMER, Rodney B. "4-H Participation and Personal Development as Perceived by Twelfth Grade Members in Delaware County, Iowa." Master of Science Thesis, 1981, Iowa State University, Ames.

Purpose. The purpose of the study was to describe the relationship between participation in Delaware County, Iowa, 4-H activities and members' personal development. The specific objectives of this research were to: (1) determine the level of participation for specific activities, (2) determine if there is a relationship between members' self-perceived overall personal development and their total 4-H participation, (3) determine if there is a relationship in members' level of 4-H participation and their self-perception in the eight scale scores, and (4) compare high and low 4-H participants' scores with their eight scale scores and overall personal development.

Method. Twelfth grade students who were members of 4-H clubs in Delaware County, Iowa, served as the population for the research. Forty-eight of the 60 members took part in the research. The research procedure utilized an ex post facto approach and a co-relational design. The members self-selected the level of treatment in which they were exposed before the research took place. Instruments were developed to measure: (1) participation in 43 selected 4-H activities, (2) self-assessment of members' personal development within eight scales and total personal development, and (3) importance of each of the 43 activities. The Statistical Package for the Social Sciences (SPSS) served as the basis for selection and computation of statistical procedures.

Findings. Members chose to participate in those activities deemed most important by jury members. On the average, the rate of participation in the 10 most important activities was nearly twice the participation rate in the 10 least important activities. Total involvement in 4-H by Delaware County seniors varied. Participation scores, as determined by number of activities and their importance, ranged from 65.4 to 269.8 out of a possible 338.2 points. The scores for the leadership and learning scales were significantly correlated with 4-H participation at the .01 level. Also scores on the total PDI and the citizenship scale were significantly ($\alpha = .05$) related to participation. Although cause and effect cannot be implied, it does appear the objectives related to obtaining these traits improve with participation. Members in the "high" participation group perceived their total personal development, leadership, citizenship, learning, and resource management significantly higher ($\alpha = .05$), than members in the "low" participation group.

HARDT, Terry L. "Decision Making Roles in the Rural Household and the Adoption and Diffusion of an Improved Maize Variety in Northern Shaba Province, Zaire." Doctor of Philosophy Dissertation, 1981, Iowa State University, Ames.

Purpose. The economic development of Africa is a major challenge in the modern world. Since ninety percent of the population lives on farms, agriculture is the key factor for economic development in most of Africa. This research examined areas affecting the design and implementation of agricultural development programs. Specifically, objectives of the study were: (1) to describe the system of agricultural production within which small

farmer household units live and work in northern Shaba, Zaire, (2) to examine the decision making roles within the small farmer households of northern Shaba, Zaire, and (3) to determine the extent of adoption of an improved maize variety in northern Shaba, Zaire, and determine characteristics which allow classification of the sample into adopter and non-adopter groups.

Method. The research was conducted in Kongoy, Shaba, Zaire. One hundred households registered as farming at least one hectare were randomly selected from census data. Data were collected through home interviews from 255 adult members during February and March, 1980.

Findings. Agronomic decisions were, for the most part, made by the head of the household. However, decisions dealing with how agricultural produce was disposed of were made by the women of the household. There was no difference in these roles between those families headed by females and those with male heads. There was little evidence that decision making is delegated along male/female lines, but rather was the responsibility of the household head -- be it male or female. The decision to adopt an improved maize variety was generally made by the head of the household. The cases in the sample were classified into adopter and nonadopter groups with an 85 percent accuracy by using the unstandardized function coefficients in the equation derived through discriminant analysis.

HAYNES, Russell. "Impact of a Supervised Occupational Experience Instructional Packet on Iowa Vocational Agriculture Students as Measured by a Work Values Inventory." Doctor of Philosophy Dissertation, 1981, Iowa State University, Ames.

Purpose. The primary purpose of this study was to assess the impact of an instructional packet on supervised occupational experience programs in regard to student work values after two and one-half years. This study also tested relationships between student work values and selected SOE attitude variables, students' post high school plans and national norm group responses.

Method. The method employed in this study was an experimental post-test only control group design. There were 67 students in the experimental group (students whose teachers used the SOE instructional packet) and 52 students in the control group (students whose teachers did not use the SOE instructional packet). Super's Work Values Inventory was used to measure work values of students and a researcher-constructed instrument was used to collect data pertaining to other variables.

Findings. Major findings of the study were: (1) no significant difference was found in work value scores of the two treatment groups, (2) no significant difference existed between the SOE attitude scores of students in the experimental group and students in the control group, (3) no significant relationship was observed between work value scores of students and their immediate plans upon completion of high school for 15 of the 16 work value measures, (4) no significant relationship was observed between work value scores of students and their occupational plans for 14

of the 16 work scales, (5) eleventh grade students who comprised the national norm group for the Work Value Inventory (Super, 1970) had significantly higher means that the Iowa students for eight of the 15 work scales, and (6) several significant relationships were identified between students' attitude toward SOE and their Work Value scale scores.

LIMBIRD, H. Martin. "Attitudes Toward Planned Work Experience for Foreign Students." Doctor of Philosophy Dissertation, 1981, Iowa State University, Ames.

Purpose. The purpose of this study was to examine the attitudes of selected students at Iowa State University, their faculty advisers and selected Iowa manufacturers toward involvement in a "planned work experience" for foreign students.

Method. Through the use of a mailed questionnaire, respondents were asked to indicate those terms and conditions which present the most concern relative to the success of a planned work experience. Included in the study were 199 foreign students, 145 foreign student advisers, and 59 firms with and without host experience programs.

Findings. Students' attitudes toward involvement in a planned work experience differed significantly from those of faculty advisers and Iowa employers on over half of the thirty items studied (i.e. participation in useful management experiences, advantages in professional advancement upon return home, etc.). Strengthened ties between academic departments and the business/professional community were expected to result from such involvement, and valuable cultural information transfers to the employer were expected to occur as well. Pay levels somewhat below regular salaries for comparable new American trainees were agreed to by a majority of respondents, but the desired minimum length of a planned work experience varied from approximately one year among students to an average of sixteen weeks. The nature of the trainee assignment was agreed to be the term or condition of most concern to all parties in terms of success of a planned work experience.

McCARTHY, David A. "Vocational Agriculture Student Benefits From Agricultural Activities on School Farms." Doctor of Philosophy Dissertation, 1981, Iowa State University, Ames.

Purpose. The purpose of this study was to ascertain the benefits vocational agriculture students receive from agriculture activities on a school farm.

Method. A selected sample of 68 vocational agriculture departments operating school farms from the four-state region of Iowa, Kansas, Missouri, and Nebraska was utilized in this study. Respondents consisted of the vocational agriculture instructor and high school administrator with major responsibility for the operation and management of those school farms. Each of the selected instructors and administrators was mailed a questionnaire

requesting that they rate 53 benefits vocational agriculture students may or may not receive from agricultural activities on school farms. Usable data were obtained from 41 administrators and 45 vocational agriculture instructors.

Findings. Prominent findings were: (1) the school farm is a valuable component of the vocational agriculture program for providing "hand's on" learning experiences to students, (2) experiences from agricultural activities on the school farm benefit non-farm students as well as farm students, (3) the school farm need not be large to be useful in the vocational agriculture program, (4) the greatest student benefits from agricultural activities on the school farm as perceived by both vocational agriculture instructors and administrators related to developing human relations skills, (5) the least important student benefits from agricultural activities on the school farm as perceived by both vocational agriculture instructors and administrators related to placement and advancement in agricultural occupations, and (6) the major activities conducted on school farms in this study related to the area of agronomy.

MOELLER, Lonell L. "Characteristics of Adult and Young Farmer Educational Programs in Iowa." Doctor of Philosophy Dissertation, 1981, Iowa State University, Ames.

Purpose. The purpose of this study was to determine the characteristics of adult and young farmer educational programs in Iowa.

Method. Data were collected by means of mailed questionnaires that were sent to selected young and adult farmer vocational agriculture teachers and their principals and superintendents in Iowa. Dependent variables were demographic data and respondents' importance scores for 55 adult and young farmer activities. The independent variable was the respondent group with farm levels: (1) superintendents, (2) principals, (3) adult farmer instructors, and (4) young farmer instructors.

Findings. Major findings of the study were: (1) administrators were in almost total agreement with their importance ratings of the 55 program activities. Likewise, instructor groups differed significantly on only one activity. (2) Administrator and instructor groups viewed the vocational agriculture instructor as a coordinator rather than a teacher for all class sessions, (3) administrators and instructor groups differed significantly in their importance mean scores for having time during the regular school day for adult or young farmer preparation and visitation, (4) administrator and instructor groups indicated that adult and young farmer programs should meet the needs of on-farm and off-farm agribusiness males and females, (5) all respondent groups indicated that program enrollees should assist in the planning of adult and young farmer class sessions, and (6) activities in the area of teacher preparation were indicated to be very important in the adult and young farmer educational program.

MORRIS, Carlton E. "The Effect of a Supervised Occupational Experience Instructional Packet on Iowa Vocational Agriculture Students' Self-Image." Doctor of Philosophy Dissertation, 1981, Iowa State University, Ames.

Purpose. The purpose of this study was to evaluate the long-term effect of a supervised occupational experience (SOE) instructional packet on students' self-images, and study the relationship between teacher attitudes and students' self-images.

Method. A post test control group was used in the investigation. The "experimental treatment" was an instructional packet designed for use by vocational agriculture teachers to help beginning students select and plan individual SOE programs. The "experimental treatment" also included inservice education for teachers in the experimental group. No materials nor inservice were provided for the teachers in the control group; they taught their "normal" instructional units on SOE. Three instruments were used to assess the effect of the instructional packet: An Involvement in Agriculture Inventory, Self-Esteem Evaluation and Purdue Teacher Opinionaire.

Findings. There was a significant difference ($p<.05$) between the mean self-esteem scores of the experimental and control treatment groups. The experimental group scores were higher than the control group scores; (2) there was a significant difference ($p<.05$) between the mean self-esteem scores of students grouped according to their SOE classification responses, (3) there was no significant difference between the mean self-esteem scores of students grouped according to their occupational plans, (4) there was a significant difference ($p<.05$) between the mean self-esteem scores of students grouped according to their post high schools plans, (5) there was no significant difference between the mean self-esteem scores of students grouped according to teacher stability, (5) a significant relationship was found between teacher attitudes and students' self-esteem levels. Four of ten teacher attitude measures were positively correlated with students' self-esteem levels.

NOMEIR, Said A. "Viewing Habits and Preferences of Central Iowa Farm Operators for Televised Agricultural Information Programs." Doctor of Philosophy Dissertation, 1981, Iowa State University, Ames.

Purpose. The study was done primarily to identify the viewing habits and preferences of farm operators living in central Iowa based on the viewership of four weekly televised agricultural information programs (TAIP).

Method. The population for the study was about 96,600 farm operators living in eighteen counties in the overlapping viewing area in central Iowa. A random multi-stage sample of 285 farm operators were drawn from the population. Two different mail questionnaires were developed to collect the research data: one for the four TV station program directors and one for the farm operators. The response rate was 53.2 percent.

Findings. Characteristics of central Iowa farm operators were identified. The findings showed that all farm operators had adequate reception of the four TV stations studied and had access to TV. But some of them were not familiar with these programs. A smaller amount of time was devoted to TAIP compared to nonagricultural programs. The farm operators watched public television's Market-to-Market more often than they did the three programs on commercial stations. They suggested scheduling of farm programs on weekday evenings, grain and livestock market information on the programs, and more repetition of the programs as ways of improving televised agricultural information programs.

POLAND, Suzanne M. "A Comparison of Farm and Non-Farm Students Enrolled in an Iowa State University Introductory Crop Production Course." Master of Science Thesis, 1981, Iowa State University, Ames.

Purpose. The purpose of this study was to determine the effectiveness of a supplemental materials approach on improving the learning environment for non-farm students enrolled in an introductory agronomy course at Iowa State University.

Method. A randomized block, control group, pre-test, post-test design was utilized. The treatment consisted of audio-tutorial instructional materials provided for students' study of a tillage and seeding unit. The control group used only the instructional materials usually provided for study of the unit. The treatment group used a set of supplemental materials prior to beginning study of the regularly provided materials. Three data collection instruments were developed for this study: a student background questionnaire, a tillage and seeding knowledge pre-test, and a tillage and seeding knowledge post-test. Students' scores from a tillage and seeding unit quiz were also used in the analysis.

Findings. Non-farm students had significantly less crop production knowledge than farm students upon entering the agronomy course. The supplemental materials were not adequate to allow non-farm or agriculturally inexperienced students to make up the difference in crop production knowledge. Non-farm students were not handicapped by their initial knowledge deficit relative to farm students in performing the required minimum competency levels in the course. Students, farm or non-farm, who used the set of supplemental materials did not gain significantly more or fewer points from the pre-test to post-test than student, farm or non-farm, who did not use the set of supplemental materials.

RUTACHOKOZIBWA, Vedasto. "Perceptions of School Farms in Iowa as an Educational Tool for Vocational Agriculture with Implications for Tanzanian School Farms." Master of Science Thesis, 1981, Iowa State University, Ames.

Purpose. Determination of the educational value of school farms in vocational agriculture programs was the central focus of this study.

Method. A random sample of 34 Iowa schools comprising 34 vocational agriculture teachers, 50 school principals and 78 students participated in the study. Data concerning operating procedures and attitudes toward the educational value of school farms was obtained by mailed questionnaire.

Findings. Over one-half of the vocational agriculture programs in Iowa have school farms ranging in size from 1 to 90 acres. Over three-fourths of the students enrolled in vocational agriculture programs lived on farms. Students expressed positive attitudes toward participating in the managerial decisions of school farm activities. Students, teachers, and administrators felt that school farms accentuated the "learning-by-doing" concept. Most schools reported they used student and teacher labor in school farm activities. The role of administrators on school farms was suggested as developing policies and objectives and participation in the appropriation of profits accrued from school farms.

SPROUSE, Duane W. "Teaching Vocational Agriculture as Perceived by Iowa Vocational Agriculture Students." Master of Science Thesis, 1981, Iowa State University, Ames.

Purpose. The purpose of this study was to determine the degree to which selected items were perceived by high school senior vocational agriculture students as encouraging them or discouraging them from pursuing a career in agricultural education.

Method. The population for this study consisted of all seniors enrolled in vocational agriculture in the southeast district of Iowa. A random sample of twenty schools was selected for the study. All senior vocational agriculture students in the twenty selected schools were asked to participate in the study. The questionnaire used to collect data for this study consisted of two parts - a section to gather personal background data on the students, and a section to determine the students' perceptions of the effect of selected job responsibilities on their decision to pursue a career in agricultural education.

Findings. The two variables perceived as most encouraging to students for entering agricultural education were the "ability to work near his/her home" and "contact with farm and agribusiness people". The two variables perceived as most discouraging were "duties to be performed in the evenings or on weekends" and "disciplining students in and out of school". All items dealing with personal factors of the instructor, except for teaching load and financial remuneration, tended to encourage students to enter vocational agriculture teaching. The FFA responsibilities, for the most part, also encouraged students to enter agricultural education. The formal teaching responsibilities and roles were found to discourage students from a career in agricultural education.

TOWNSEND, Christine D. "FFA Participation and Personal Development as Perceived by Iowa Vocational Agriculture Seniors." Doctor of Philosophy Dissertation, 1981, Iowa State University, Ames.

Purpose. The purpose of the study was to describe the relationship between participation in FFA activities and a member's self-perceived personal development.

Method. The population consisted of Iowa twelfth grade vocational agriculture students who were members of the FFA. A cluster sample was utilized to randomly select 426 students in 54 schools in Iowa. The students were administered two instruments -- the Personal Development Inventory (PDI) and the FFA Activity Participation Inventory. The PDI was a self-assessment instrument consisting of 10 personality scales: leadership, self-confidence, occupational choice, home surroundings appreciation, agricultural orientation, citizenship, cooperation, thrift, scholarship, and health and recreation. Each scale mean yielded a score for the related trait and together the scales constituted a total personal development score. An FFA activity participation score was calculated from the second instrument with each activity weighed by a jury as to its quality and importance in a student's membership. The PDI scale scores and FFA activity participation scores were statistically analyzed using Pearson correlation and single analysis of variance. T-tests were used to compare unweighted FFA activities with the 10 scale scores and total PDI.

Findings. Eighty-one significant positive relationships were found where participants of FFA activities had higher PDI scale scores than nonparticipants. Twenty-four significant relationships were found where participants of FFA activities had lower PDI scale scores than nonparticipants. The remaining 302 relationships between participation groups of FFA activities showed no significant difference in the PDI scores of the two groups. Local FFA activities had the greatest number of positive relationships to participants' PDI scores as illustrated by the banquet and fund raising activities where PDI scores were significantly higher on 11 and 10 scales respectively. The leadership scale had significantly higher scores for participants of 18 activities while self-confidence had significantly higher scores for participants of only three activities. From this study, it was concluded that FFA activities assisted in the leadership and personal development of the members particularly during local level participation.

TOWNSEND, Joe D. "An Experimental Evaluation of an Instructional Packet on Leadership and FFA for Beginning Vocational Agriculture Students in Iowa." Doctor of Philosophy Dissertation, 1981, Iowa State University, Ames.

Purpose. The purpose of the study was to evaluate an instructional packet on leadership and FFA for beginning vocational agriculture students in Iowa. The research procedure was experimental, with a post test control group research design. The independent variable manipulated by the researcher was the degree to which teachers had access to an instructional packet on leadership and FFA. Three levels of the experimental variable were used: (1) teachers in schools who were provided the instructional packet and inservice on its use, (2) teachers in schools who were provided the instructional

packet with no inservice on its use, and (3) teachers in schools who were instructed to teach whey they normally would teach to their beginning vocational agriculture students on leadership and FFA (control treatment group).

Method. Beginning vocational agriculture classes in Iowa during the 1980-81 school year served as the population for the research. A random sample of 60 schools (classes) was selected to participate in the study, and they were randomly assigned to two experimental groups and a control treatment group. The research procedure was experimental, with a post test control group research design. The independent variable that was manipulated by the researcher was the degree to which teachers had access to an instructional packet on leadership and FFA.

Findings. Students in schools whose teachers were in group 1 (packet and inservice) had significantly higher attitude scores ($\alpha = .05$) on the FFA attitude scale than students included in the control treatment group. When the effects of the variables, "teaching days spent on FFA this year" and "FFA chapter activities score," were removed as covariates, a significant difference ($\alpha = .01$) continued to exist between the groups. Significant differences occurred between group 1 (packet and inservice) and group 3 (control) at the .01 level, and between group 2 (packet only) and group 3 (control) at .05. Therefore, students whole teachers were provided the packet had a better attitude toward FFA than students in the control group. The mean scores for the two experimental groups on the FFA Knowledge Inventory were higher than the control group; however, the differences were not significant ($\alpha = .05$). Results indicated that inservice on the use of the instructional packet should be provided to teachers in order to realize the maximum benefits of the materials. Findings indicated that the instructional packet was successful in assisting vocational agriculture teachers instruct beginning students in leadership and FFA.

KANSAS

GARTEN, Casey D. and WELTON, Richard F. "Comparison Study of Methods of Training Thai Young Farmers in Poultry Raising." Master of Science Thesis, 1981, Kansas State University, Manhattan.

Purpose. The purpose of the study was to determine the relationship between the use of printed material and a training program developed for poultry raising and its influence on the learner in the areas of knowledge, application of knowledge, and interest.

Method. Participants in this study were 96 Thai young farmer members planning to raise broiler chickens as a club project. Nine young farmer clubs and selected members in these clubs were randomly assigned to one of the three treatment groups. Following pretesting, the groups received various treatments and participated in poultry raising projects.

Findings. Methods of training youth can affect the amount of knowledge they gain and apply to real life situations. The method involving both project book and training sessions was significantly more successful in increasing participant knowledge about raising poultry. Using the project book by itself did not produce a significant difference as compared to no training at all.

PARKLEY, John D. and WELTON, Richard F. "Opinions of Agriculture Teachers, School Administrators, Students and Parents Concerning Females as Agriculture Students, Teachers and Workers in Agriculture." Staff Study, 1981, Kansas State University, Manhattan.

Purpose. The purpose of this study was to assess opinions of vocational agriculture teachers, school administrators, vocational agriculture students and their parents concerning females as vocational agriculture students, vocational agriculture teachers or workers in agriculture.

Method. All vocational agriculture teachers in Kansas and an administrator in each school offering vocational agriculture were requested to respond to a questionnaire. Additionally, vocational agriculture students in the randomly selected schools and their parents were also asked to respond to this survey instrument. Participants were asked to respond to statements designed to assess overall female sex bias, female student bias, female vocational agriculture teacher bias and female agricultural worker bias. Subsequent to the follow-up of non-respondents, the data were analyzed using descriptive statistics.

Findings. Responses were received from 154 vocational agriculture teachers, 132 school administrators, 576 vocational agriculture students and 390 parents. Among the salient findings were: (1) all groups tend to exhibit support for education and employment opportunities for females when those opportunities are considered as concepts; (2) all groups exhibited support for female enrollment in vocational agriculture; (3) all groups expressed a preference for male workers rather than female workers in agriculture; (4) students expressed opinions in opposition to females as vocational agriculture teachers.

UNRUH, Dale and WELTON, Richard F. "An Evaluation of the Undergraduate Curriculum in Agricultural Education at Kansas State University." Master of Science Report, 1981, Kansas State University, Manhattan.

Purpose. The purpose of this study was to determine how agricultural education undergraduates and graduates perceive the effectiveness of the agricultural education curriculum at Kansas State University and to make recommendations for changes in the curriculum.

Method. All students currently enrolled in agricultural education and all graduates of the past four years (1976-1981) were asked to respond to a questionnaire. Four meetings were scheduled on three days at three different time periods on campus for undergraduate students. Graduates received a mailed questionnaire.

Findings. Responses were received from 92 undergraduate students and 67 graduates. Major findings of the study include: (1) both groups indicated strong support for additional emphasis on the record book and student management during the block semester; (2) all agricultural elective courses taken by both groups received an above average rating; (3) four of the five professional semester courses were rated in the top ten of the required courses by graduates and three of these courses were in the top ten according to undergraduates; (4) both groups indicated similar satisfaction with the total curriculum.

LOUISIANA

KOTRLIK, Joe W. "The Effective Use of Adult Programs, Occupational Experience Programs, and Advisory Committees in High School Vocational Agriculture/Agribusiness Programs." Staff Study, Louisiana State University, Baton Rouge.

Purpose. The purpose of this project was to determine factors existing in high schools that hinder the effective use of supervised occupational experience programs, adult education programs, and lay advisory councils in Louisiana vocational agriculture/agribusiness programs.

Method. The sample utilized was selected at random from Louisiana Vocational Agriculture/Agribusiness Teachers 1979-80. From this listing those teachers with less than two years of teaching experience were deleted to insure that only those teachers familiar with the components to be studied would be selected. After the deletions were made a completely random sample was drawn using a table of random numbers which consisted of 140 teachers or approximately 45 percent.

A closed-form opinionnaire was developed to secure information regarding teachers' experiences with advisory councils, adult programs, and supervised occupational experience programs. The opinionnaire contained both short answer and Likert scale items. The opinionnaires were then mailed to the sample of teachers.

Findings. The vocational agriculture/agribusiness teachers responding to the opinionnaire were described on various demographic characteristics including educational level, teaching experience, school location, and classes taught other than vocational agriculture. In addition, respondents indicated their extent of agreement with a series of questions related to advisory committees, adult programs, and supervised occupational experience programs.

The majority (68.2 percent) of respondents said that they utilized an advisory committee and most of these committees (40.0 percent) were composed of 6-10 members. However, 46 (61.4 percent) of these committees did not have written policies and procedures to guide their actions. In addition, most (73.3 percent) committees did not include student members and 45.3 percent met once a year.

More than two-thirds (68.2 percent) of the respondents did not conduct adult programs during the 1979-80 school year, while 42.7 percent indicated that they had never conducted an adult program. Primary reasons cited for this were lack of time, money, and interest.

The most frequently used SOE project was reported to be raising animals or crops with teachers responding that 34.3 percent of students had this type of project. Overall teachers said that 15.3 percent of their students had no SOE project.

MCCULLY, James S., Jr. "Comparison of individualized instruction and Group Instruction Methods in Basic Vocational Agriculture Classes." Doctor of Philosophy Dissertation, Louisiana State University, Baton Rouge.

Purpose. The purpose of this study was to compare the independent study method to the lecture-discussion method in Mississippi basic vocational agriculture classes. Student achievement, time spent in study and student and teacher opinion were utilized as dependent variables.

Method. Three units of instruction were compiled for use by the two treatment groups. A pretest and posttest were developed for each unit. Two student assignments were also developed to serve as measures of student achievement. A student and teacher opinionnaire utilizing the semantic differential method was administered to measure opinions. Additionally, a standardized reading test was given to provide a measure of reading ability.

Schools in the study were selected and assigned to treatments at random. One class of students in each school participated in the study. Nine chools containing a total of 175 students completed the independent study treatment. Seven schools containing 157 students completed the lecture-discussion treatment. In the control group, there were seven schools and a total of 123 students.

Findings. In relation to student achievement as measured by post-tests, no significant differences were detected between the two treatments on each of the three posttests. The lecture-discussion treatment produced post-test scores significantly higher than the control groups scores on all three posttests. The independent study treatment yielded significantly higher scores on two of the posttests than the control treatment.

No significant difference between the two treatment groups was detected when the student assignment scores were analyzed.

The time spent in independent study of the units was significantly less for each unit than the time spent in lecture-discussion study.

No significant difference could be shown to exist in student and teacher opinion toward instructional method. Teachers and students in the independent study group did differ significantly in their opinions toward instructional content.

SALADAGA, Fe S. "Professional Competencies Needed, Levels Attained, and Training Sources as Perceived by Vocational Agriculture Teachers." Doctor of Philosophy Dissertation, Louisiana State University, Baton Rouge

Purpose. The purpose of this study was to identify the professional competencies that should be included in the pre-service curriculum for vocational agriculture/agribusiness teachers in Louisiana with emphasis on levels of need and attainment of competencies and the one main training source as perceived by teachers. Differences among teachers responses on labels of need and attainment, relationships between responses on relative need for competencies and attainment levels, and differences among responses on attainment levels by selected demographic variables were investigated.

Method. The descriptive method of research was used with opinionnaires utilized for data collection. Data were collected from 95 percent of 127 Louisiana vocational agriculture teachers who completed a Bachelor of Science degree with a major in Vocational Agricultural Education from 1963-1979. Data collected were tabulated, presented and analyzed.

Findings. Teacher responses on competency need levels lay between essential to moderate levels indicating that all 81 competencies in nine areas were needed.

The mean responses of teachers on the competencies were between very high to adequate attainment levels which indicated that the teachers felt that they had sufficient degree of competence. The data revealed that there was a sizably lower mean rating for teachers' competency attainment levels compared with their mean ratings of need for most competencies studied.

Small variability of teacher responses on both levels of need and attainment of the competencies was indicated by small computed standard deviation values presented in this study.

The teachers' need for a majority of the competencies was substantially related to teachers' self-reported attainment levels.

On the job training was considered by teachers to be their major training source. Considering this, it seemed that the emphasis on competencies in the pre-service curriculum may not be directly reflected in teacher ratings, particularly in levels of competency needed. All 81 competencies were rated highly and should be included in the pre-service curriculum. Low relationships existed between five demographic variables and teachers' self-reported attainment levels in 26 specific competencies.

MARYLAND

ARRINGTON III, D. Richard. "FFA Membership Trends in the Eastern Region of the U.S. as Related to Selected Factors in Vocational Agriculture Programs." Master of Science Thesis, 1981, University of Maryland, College Park.

Purpose. The purpose was to determine if selected factors in vocational agriculture programs were related to the decline in FFA membership in the Eastern Region of the U.S. and to collect benchmark data for future studies. The study included certain factors such as the vo-ag teacher shortage, number of chartered FFA chapters, certification status of teachers, FFA membership costs, and contract length of teachers to determine their relationships to FFA membership trends.

Method. Data were collected by record search and mailed survey. Four questionnaires were developed and mailed to the randomly selected invited sample in schools with vo-ag programs; first, a vo-ag teacher questionnaire to obtain information regarding all teachers; second, a head teacher questionnaire to obtain departmental information; third, an FFA member questionnaire; and, fourth, a non-FFA member questionnaire. A total of 1,527 questionnaires were sent, with 1,369 of these returned and analyzed. This was an overall return of 89.7 percent.

Findings. Data from survey instruments, the National FFA Center, and Dr. David Craig's studies (1971-1980), entitled "A National Study of the Supply and Demand for Teachers of Vocational Agriculture", were evaluated to draw conclusions. It was concluded that four of the five null-hypotheses could not be rejected. The null-hypotheses not rejected were: (1) there is no relationship between the decline in FFA membership in the Eastern Region and the shortage of vo-ag teachers; (2) there is no relationship between declining FFA membership in the Eastern Region and the use of teachers without full certification status; (3) there is no relationship between declining FFA membership in the Eastern Region and FFA membership costs; (4) there is no relationship between the declining FFA membership in the Eastern Region and reduction in length of vo-ag teacher contracts. The null-hypothesis which was rejected stated: there is no relationship between the decline in FFA membership in the Eastern Region and the numbers of chartered FFA chapters. Extensive benchmark data were obtained and recorded in the written document. Included is information such as numbers of departments, vo-ag teachers, students, and FFA members. Further, program types, facilities, enrollment trends, teacher certification, and teacher tenure are included.

LUDWIG, Pamela A. "Standards for Quality Agriculture/Agribusiness Programs in Maryland as Perceived by Vocational Agriculture Teachers." Master of Science Thesis, 1980, University of Maryland, College Park.

Purpose. The purpose of this study was to review, refine, and/or modify a set of standards developed nationally for secondary agriculture/agribusiness programs in Maryland. The statements were to be standards of quality for vocational programs in agriculture/agribusiness education for Maryland public schools as validated by secondary agriculture instructors in Maryland and presented for adoption and implementation by the Maryland State Department of Education.

Method. The study consisted of four instruments mailed to all the secondary agriculture instructors in Maryland, excluding the author. Each instructor was directed to respond to the statements indicative of standards common to all programs and to statements indicative of standards for each specialty area (agricultural mechanics, production agriculture, and ornamental horticulture) in which he/she taught, by rating each statement either "strongly agree," "agree," "disagree," or "strongly disagree." A four point value Likert-type scale was used to weigh each statement equally and to reflect the intensity of each respondent's attitude. The mean, variance, and percentage of responses were used to validate each statement as a possible standard. Of the 100 agriculture instructors surveyed, 62 responded.

Findings. The results of the study indicated that of the total 75 statements concerning standards common to all programs, 67, or 89.3 percent, were validated as standards. In the specialty areas there were 17, or 81.0 percent, of the 21 statements specific to agricultural mechanics validated, 5, or 45.0 percent, of the 11 statements specific to production agriculture validated, and 14, or 78.9 percent, of the 19 statements specific to ornamental horticulture validated as standards by the Maryland agriculture instructors. The findings of this study indicated that the statements validated by the Maryland agriculture instructors should be considered for adoption and implementation by the Maryland State Department of Education as standards of quality for vocational programs in agriculture/agribusiness education in Maryland. The

statements that were not validated by the criteria set should be reviewed, revised, and reconsidered as possible standards. Maryland agriculture instructors should utilize the standards as guidelines for reviewing, evaluating, improving, or developing vocational agriculture programs. The standards will need to be regularly examined and revised as program needs evolve and change.

MASSIE, Cecil M. "Agriculturally-Related Accidents in Maryland in 1974 and Their Relationship to Selected Variables." Ph.D. Dissertation, 1979, University of Maryland, College Park.

Purpose. The purpose of this study was to determine the relationship between selected variables and agriculturally-related accidents in the State of Maryland during 1974.

Method. Information was obtained by using the revised form of the National Safety Council "Form for Reporting Farm Accident Data." The data were recorded according to a standardized coding system. The data in this study were obtained through the cooperation of the Department of Agricultural Engineering, Cooperative Extension Service, Maryland Farm Bureau Women's Committee, Maryland Agricultural Safety and Health Federation and the National Safety Council. The population of this study included all farms in the 23 counties of Maryland. A 10 percent sample from this population was selected. Location of the farms in a county was determined by a stratified sampling of areas within the county. Chi square statistic was used to determine the relationship between certain variables. Actual levels of significance greater than above the .050 level were reported.

Findings. There was a chi square significant at .050 when the relationship between number of years on the farm and the person who administered first aid to the injured person were crosstabulated. When the number of family members at home was crosstabulated with the age of individuals injured, a chi square significant at .020 resulted. When the number of hours per week devoted to farm work and regions of the body were crosstabulated, a chi square significant at .020 resulted. When the years attended school was crosstabulated with time of year of accident a chi square significant at .050 resulted. When the years attended school and age of injured was crosstabulated a chi square significant at .004 resulted. When the hours per week devoted to farm work and age of injured was crosstabulated a chi square significant at .004 resulted. When years on farm and age of injured was crosstabulated, a chi square probability of .000 resulted. On the basis of age, the Low-26 year age group was involved in the highest proportion of accidents. The 50-Hi age group was involved in the next proportion and the 27-49 year age group had the lowest proportion of accidents. On the basis of years on the farm the 32-49 year group were involved in the highest proportion of accidents. The 48-Hi group was involved in the next highest proportion and the Low-31 years on farm group was involved in the lowest proportion of accidents. A two-sample t-test was used to determine if there was a difference between selected demographic factors of farms that had accidents in the years 1974 and farms that did not have accidents. Results of the t-test indicated differences at the .050 level of significance or less in the size of operation on the basis of (1) acreage, (2) number of full time workers and (3) number of hours worked per worker. A regression analysis showed that 18% of the variability in severity of accidents was explained by number of persons involved, time victim was with thing involved, and years in school. Results of this study suggest the need for further research to identify variables that can be used as a basis in reducing agriculturally-related accidents.

MICHIGAN

ASSADOLLAH, Zamanipour. "A Study of Recommendations for Agricultural Education and Agricultural Extension in Iran 1950-1975." Ph.D. Dissertation, 1981, Michigan State University, East Lansing.

Purpose. The purpose of the study was to discover, classify and analyze the recommendations for agricultural education and agricultural extension based on documents published by the Government of Iran for the period 1950 to 1975.

Method. The primary sources of data and information were official publications by the Iranian Government with special emphasis on the five government plans during the period 1950-1975. Secondary sources of data and information consisted mainly of publications from the United Nations. The pattern for review of each plan included the overall objectives for the plan and the goals and procedures for attaining the goals in both agricultural development and education. Recommendations for agricultural education were compiled through the use of the following topics: general philosophy and objectives of education, philosophy and objectives of agricultural education, administration, curriculum, teacher education, students, instructional materials and equipment, and budget.

The recommendations for agricultural extension were compiled through similar topics: philosophy and objectives of agricultural development, philosophy and objectives of agricultural extension, extension administration, role of extension agents, methods of teaching, extension agent preparation, and budget.

Findings. The philosophy and objectives for education tended to shift from emphasis in the first plan or spiritual aspects of life to an emphasis in the fifth plan to the secular aspects of life. In terms of the curriculum for agricultural education, the recommended areas of instruction did not reflect adaptation to the widely varied local conditions. The portion of public investment budgeted to education decreased from 1956 to 1978.

The objectives for agricultural extension were considered to be consistent with the conventional philosophy of extension. There was a lack of consistency between the agricultural development objectives and agricultural extension operational policies, especially in the third and fifth plans. The agricultural extension program was expected to serve three groups: farmers, their wives, and the rural youth. The proportion of the investment budget dedicated to agriculture decreased from the second to the fifth plan.

BENNETT, Patrick S. "A Comparative Analysis Between Vocational and Non-vocational Graduates From A Related Number of Jamaican New Secondary Schools."

Purpose. To assess the outcomes of secondary vocational graduates through a comparative analysis between vocational and non-vocational graduates from New Secondary schools.

Method. A questionnaire consisting mostly of close ended questions was used to collect the data from a random sample of nine hundred and seventy-seven (977) New Secondary school 1977 graduates. The questionnaire was

first pilot tested, and the entire questionnaire yielded a correlation coefficient of .74. Eighty-one percent of the questionnaires were returned.

Findings. Most of the variables, including employment, failed to show any statistically significant differences between the response from vocational and the nonvocational graduates. The indicators are that factors beyond the control of the school were far more critical than school factors in determining vocational outcomes of the 1977 Jamaican New Secondary graduates. The graduates' replies regarding what factors they thought contributed to their unemployment as an analysis of the Jamaican Gross Domestic Product and unemployment figures indicated that the state of the economy was probably the most critical factor.

OGUNDIPE, Rebecca M. "A Study of the Self-Perceived Professional Education Competencies Needed by Vocational Agriculture Teachers in Michigan." Ph.D. Dissertation, 1980, Michigan State University, East Lansing, Michigan.

Purpose. The primary purposes of the study were: (a) to ascertain the educational and occupational characteristics of the vocational agriculture teachers in Michigan; (b) to determine the self-perceived professional education competencies needed by these teachers; and (c) to analyze the relationship between these needs and the characteristics of the teachers.

Method. A mail questionnaire used to collect the data from the 211 vocational agriculture teachers who were teaching in the area vocational centers and high schools in Michigan during the 1979-80 school year. Part I of the questionnaire consisted of 16 questions pertaining to the teachers' educational and occupational characteristics. Part II questioned them on their need to update or further improve in 95 selected professional education competencies. Descriptive statistics were used to summarize the data and chi-square statistics were used to list if there was any significant relationship between the characteristics of the teachers and the professional education competencies needed by these teachers.

Major findings. Fifteen professional education competencies were rated as needed for updating by the teachers surveyed. There were no significant relationships between the frequencies of the ratings of the 15 professional education competencies most needed by the Michigan vocational agriculture teachers and six characteristics of the teachers. These characteristics were: major when graduated from college, enrollment in vocational agriculture in high school, FFA membership in high school, years of practical work experience before teaching vocational agriculture, years of teaching vocational agriculture and where they received their Competency-Based Education training. There were significant relationships between a number of characteristics of the teachers and some of the professional education competencies. These characteristics were: the type of school where the teachers taught, teachers of different age groups, university from which the teachers graduated, teacher educational levels, teachers of different vocational teaching certification, teachers' interest in participating in professional education inservice activities and the training the teachers received in Competency-Based Education.

MINNESOTA

BARK, Dale R. "Extent of Involvement With and Expressed Attitudes Toward Livestock Shows by Minnesota High School Vocational Agriculture Instructors". Master of Arts Colloquium Paper, 1980, The University of Minnesota, St. Paul.

Purpose. The purpose of this study was to identify: 1) what relationships, if any, existed between amount of instructor involvement with teaching showing and fitting, fair supervision, selected instructor background and department variables; 2) what relationships, if any, existed between attitudes of instructors as indicated by ratings and selected instructor background and department variables and, 3) what, if any, changes were felt necessary in the junior livestock show system.

Method. Eighty-five Minnesota high school vocational agriculture instructors were selected for participation by stratified random sampling of 30 percent of the instructors with at least two years' teaching experience from each of the 16 districts established by the Minnesota Vocational Agriculture Instructors' Association (MVAIA). Selected participants were mailed a questionnaire asking them to estimate time and student involvement and to rate selected livestock show attributes.

Findings. Nearly all instructors (94 percent) indicated some degree of current student involvement in livestock shows, with an average time involvement of 45 hours per year per instructor. Extent of instructor involvement and student participation differed significantly with some instructor background and department variables. Instructors generally perceived shows as satisfactory activities, and were especially favorable towards shows as means of motivation. Indicated perceptions and ratings differed significantly with some instructor background and department variables.

DEAN, Jay W. "Computers in Education: An Examination of the Role This Alternative Instructional Delivery System Might Play in Rural Education in the 1980's". Master of Arts Colloquium Paper, 1981, University of Minnesota, St. Paul.

Purpose. The purpose of the study is to examine how alternative instructional delivery systems, especially computer-based instruction, might be used in schools to help maintain a viable curriculum. The study was prompted out of a concern about the future of small rural schools -- those that are being hit particularly hard by declining student enrollments.

Method. The paper looks at the history, the current status, and the future of educationally-related hardware and software. Some of the problems associated with attempting to integrate computer-based instruction into the

curriculum are also examined. A prototypical high school biology curriculum is broken down into instructional objectives and matched to existing courseware.

Findings. The author concludes that although we are in the midst of a technological revolution that bodes well for the future, we are currently limited by the courseware that is available. Existing biology courseware is adjunct in nature; each program teaches a limited number of concepts or ideas. While some of these programs greatly enrich the curriculum, to link them together under a computer-based management system would be an extensive task. However, as the software industry reaches its stride and as easy to use authoring systems are developed, more and better software can be expected.

GROEN, Brant J. "Determining the Utility of Dairy Farm Manager Competencies in Assessing Students". Master of Education Paper, 1981, The University of Minnesota, St. Paul.

Purpose. The purpose of this study was to determine the utility of the dairy farm manager competency list in assessing the competency level of students entering and exiting a dairy management course at the author's school.

Method. The assessment instrument was developed from the dairy farm manager competency list by adding a skill level scale (0 to 5). The 1979 dairy management course graduates and the 1979-80 class members were asked to complete self assessments. The latter group completed the assessment at the beginning and end of the course. The average competency level for all students was calculated for each competency. The gain in average competency level for the total instrument was calculated for the 1979-80 students. A table was prepared which listed the competencies in order of importance as indicated in the National Agricultural Occupations Competency Study and the 1980 graduates average competency level.

Findings. The average competency levels for the individual competencies were consistent for the 1979 and 1980 graduates. Areas of instruction with relatively low and high average ratings were identified and reviewed in reference to the importance assigned. The author judged this procedure to be useful in objectively reviewing the course. He also found the procedure helpful in establishing the students' level of need for instruction relative to specific competencies.

KOSEL, Brian J. "An Overview of Needs' Assessment, Planning, Constructing and Occupying a Facility for a Complete Vocational Agriculture Program". Master of Education Paper, 1980, The University of Minnesota, St. Paul.

Purpose. The purpose of this paper was to deal with the factors that lead to the planning, constructing, equipping and occupying a facility for a complete vocational agriculture program.

Method. A brief summary of what took place in the past in other vocational agriculture programs, a detailed review of the planning and analysis that took place in constructing the new vocational agriculture facility at Owatonna, Minnesota, were presented and, most importantly, a chronological diary of what the teacher(s) did nine years, in advance, to help provide the need for a new vocational agreculture facility at Owatonna, Minnesota.

Findings. It is evident that facility planning, constructing, equipping and occupying are no simple tasks. But, if one would plan first and then act, the success would far outweigh the failure. But, just as important to having good facilities, is having competent teachers with leadership ability. Using the decision-making process is vital to planning a good facility. Also, one must remember to acquire all the knowledge of past experience, either your own or from within the specialized field, so one is knowledgeable and does not proceed to re-invent the wheel.

It is the author's belief, after having the opportunity to be part of the planning, constructing, equipping and occupying a new vocational agriculture facility, that the facility is a direct reflection of the teacher's dedication to the profession. Dedication, like true friendship, can be non-verbally read by others. . . including fellow teachers, administrators, community people and , most importantly, students. It is the student who is served first and foremost. Schools exist for students. If students' needs are met, whether they are social, economic, educational, physical, moral, or whatever, then the phenomena of wall-to-wall kids occurs which is a compliment to the ability of a competent teacher. Then, with enrollment up, new facilities can be built to serve these needs.

OGUNBAMERU, Bankole O. "Model for Determining the Utility of Self-assessed Competencies in Predicting Economic Success in Dairy Enterprise Management". Ph.D. Dissertation, 1981, University of Minnesota, St. Paul.

Purpose. This study was embarked upon to answer the question: Does the dairy farm manager (DFM) competency assessment list, used as a measurement instrument, measure consistently and validly enough to be useful in practical situations?

Method. The DFM's rated their competency levels using the DFM competency assessment instrument. The farm management instructors (FMI) also used the DFM competency assessment instrument to rate the competency levels of their respective DFM's. The DFM and FMI cooperatively retrieved completed "comment forms" on the DFM competency instruments.

Findings. The internal consistency co-efficients for the DFM and FMI instruments were .910 and .945, respectively. These high co-efficients suggested that the items in the two instruments were homogeneous. The content validity was established by the high percentages of the DFM and FMI who contended that: 1) the instructions were easy to understand, 94 and 100 percent, 2) the scales were easy to understand and use, 93 and 100 percent, and 3) the items in the instruments adequately described the skills required by dairy enterprise managers, 87 and 92 percent, respectively. The concurrent validity of the instruments was demonstrated by: 1) the non-significant differences between the mean ratings of the DFM competency levels by the DFM themselves and the FMI, and 2) the highly significant and positive correlation between the two competency instruments. The Personian T for the two instruments was .467. About 78 and 69 percent of the DFM and FMI, respectively, strongly favored using the instruments in planning instruction. None of the two groups opposed using the instruments in instructional planning. The predictive utility of the instruments was evidenced by the positive correlation between the competency measures and the two dairy enterprise economic success measures, "return over feed costs" and "return over all listed costs". The ten competency measures were moderately consistent in predicting the economic measures. The two most consistent competency measures were good "records" keeping and proper "herd and health" programs.

PEPPLE, Dellan J. "Evaluation of the Importance of Agricultural Construction Competencies to Farmers in Minnesota". Master of Education Paper, 1981, University of Minnesota, St. Paul.

Purpose. This study investigated the importance farmers in Minnesota placed on performing specific agricultural competencies, determined if farmers or agri-business persons perfomed these competencies, and developed guidelines for curriculum development in agricultural construction and repair for agricultural instructors in Minnesota.

Method. The agricultural construction curriculum was divided into eight problem areas. For each of the problem areas, a number of briefly stated competency statements were developed - a total of 281 competency statements. The problem areas were divided between two survey instruments which were sent to randomly-selected farmers throughout the state of Minnesota. The responses from these survey instruments were tabulated to determine the competencies given the greatest importance and which were performed by farmers or agri-business.

Findings. The responses to the survey instruments resulted in the ranking of agricultural construction competencies based upon ratings of importance and who performed them. From these rankings, a curriculum outline was developed for use by vocational agricultural departments. A number of competencies were recommended in each of the following problem areas of agricultural construction: building selection and planning, building site selection and preparation, carpentry, plumbing and heating and ventilating agricultural buildings.

SCHAUFLER, Richard A. "Contest Organization Guide for Soils and Milk Quality/Dairy Fo ds". Master of Education Paper, 1981, University of Minnesota, St. Paul.

Purpose. The purpose of the study was to develop a guide for organizing and operating a soils and a milk quality/dairy foods contest at the district level. The guides were directed toward inexperienced Vo-Ag instructors.

Method. The literature was reviewed to identify any existing guides for organizing and operating FFA contests. Using the contest rules as a guide, the author established an outline of procedures that would enable the Vo-Ag teachers to organize a contest that would address the variables called for in the contest rules. The completed guides were field tested by six instructors who had extensive experience in organizing and operating the contests. As a result of their feed back, the guides were revised.

Findings. The prototype guidelines judged to be effective by the field test can serve as guides to the development of organizing and operating procedures for other FFA contests.

STEINKAMP, Roger J. "Vocational Education Needs Assessment of the Minneapolis Indian Population". Master of Arts Colloquium Paper, 1981, University of Minnesota, St. Paul.

Purpose. The purpose of this paper was to take the results of a survey administered by Ohio State in cooperation with the State Department of Minnesota, analyze them and explore the implications for vocational education in meeting special needs of Indian populations.

Method. The results of the survey were processed through the SPSS computer program, yielding descriptive statistics which seemed to be adequate for the purposes of this study. Also, at the end of the questionnaire, opinions and additional comments were invited. The results were then submitted to an advisory committee for additional comment.

Findings. The felt needs of the population surveyed include: 1) better counseling to increase awareness of careers available; 2) offering of more effective financial assistance; 3) improvement of career planning services; 4) greater teacher and administrative sensitivity, and 5) additional efforts by placement services to help Indians find jobs once they have received training.

WARNER, James Curtis "A Study of the Relationship of Tuition Charged for Adult Farm Business Management Programs in the State of Minnesota and Enrollment in These Programs". Master of Arts Colloquium Paper, 1980, University of Minnesota, St. Paul.

Purpose. This study was conducted to determine if relationships exist between tuition charges and enrollment levels in adult farm business management programs in Minnesota and also to determine if the length of participation is influenced by tuition charges.

Method. A data collection instrument was developed to gather information on enrollments, tuition charges, instructor background and methods of instruction used in the adult farm business management programs in Minnesota. This survey form was sent to each of the 123 instructors in the state. After two follow-up mailings, the number of completed surveys returned was 96. The surveys were sorted into three groups by level of tuition charged. The data on all surveys that were completely filled out was tabulated and run through a micro-computer for statistical analysis.

Findings. There are differences in tuition rates charged to program participants between schools and there are differences between tuition rates charged to program participants in the same school over a period of years. There are no differences in total program enrollments for the various tuition level groups. There is a difference between the mean enrollment of participants with six or more years of enrollment and the mean enrollment of participants with less than six years of enrollment indicating that the participants with six years or more of enrollment make up a significant portion of the enrollment.

Conclusions of the two major hypothesis are that there is no relationship between tuition levels and enrollment, and there is no relationship between tuition level and length of participation.

MISSISSIPPI

BOWEN, Blannie E. "An Evaluation of Selected Agricultural Education Leadership Newsletter Characteristics." Staff Study, 1981, Mississippi State University, Mississippi State.

Purpose. The major objective in this research effort was to evaluate the extent that the Agricultural Education Leadership Newsletter, published by the Department of Agricultural and Extension Education, is read by persons receiving the newsletter. Secondary objectives were to describe the characteristics of persons receiving the newsletter and to determine relationships existing between newsletter characteristics and demographic variables.

Method. A stratified random sample of 100 persons on the newsletter mailing list was sent a questionnaire constructed by the investigator to assess perceptions readers held about the newsletter. Persons on the mailing list included high school vocational agriculture instructors in Mississippi, state supervisors of agricultural education, teacher educators in agriculture, and administrators at Mississippi State University. A 77 percent response rate was achieved in the study.

Findings. Major findings achieved include: (1) three of every four persons receiving the newsletter read at least 75 percent of each issue, (2) authors preferred by at least 85 percent of the respondents include the state supervisors, teacher educators, and vocational agriculture teachers, and (3) readers perceive the newsletter to be informing of agricultural education in Mississippi when issues contain (a) the proper number of pictures, (b) articles about state supervisory office activities, and (c) adequate coverage of technical agriculture subjects.

BYLER, Ben L. and CANTRELL, Joy. "The Role of the Vocational Agriculture Instructor as a Community Leader of Agriculture." Staff Study, 1981, Mississippi State University, Mississippi State.

Purpose. The primary objective of this study was to analyze the role of the vocational agriculture instructor as a community agricultural leader. Specific objectives were to: (1) determine the descriptive role of the vocational agriculture instructor as a community leader of agriculture, (2) determine significant differences in the perception of these roles by vocational agriculture instructors and their administrators, (3) analyze factors that inhibit or enhance these roles, and (4) determine differences in the perception of these factors between vocational agriculture instructors and their administrators.

Method. Data were collected by a mailed questionnaire from a stratified, random sample of all 1980-81 Mississippi vocational agriculture instructors and their administrators. The questionnaire consisted of 37 demographic items, 55 items relating to instructor roles, 34 items pertaining to influencing factors, and 9 items identifying instructor responsibility areas.

Findings. Seventy percent of both groups responded to the questionnaire. Mean ratings of respondents on all but three of the 55 items suggests that vocational agriculture instructors have an important role as a community leader. The most important variable perceived to enhance the vocational agriculture instructor's role as a community agricultural leader was the support the community gives to the vocational agriculture program. There was a significant difference in perception of administrators and vocational agriculture instructors on the allocation of teacher time and on four of the nine instructor responsibility areas.

BYLER, Ben L. and CANTRELL, Joy. "A Study of the Diffusion and Adoption of Selected Agricultural Technology by Farmers in Mississippi." Staff Study, 1981, Mississippi State University, Mississippi State.

Purpose. The general purpose of this research was to provide an indication of how current innovations have been adopted by the agricultural producers in Mississippi. The specific objectives of the study were to: (1) determine which channels of communication are being used by farmers at different stages in the adoption process, (2) determine the degree farmers have adopted selected technology, and (3) determine differences in demographic characteristics of farmers within the adoption stages.

Method. Data were collected from a stratified, random sample of farmers via a mailed questionnaire. The instrument used was pilot tested during 1979-80 and consisted of three sections: (1) farmer's demographic data, (2) inventory of year and channels of information utilized throughout stages of the diffusion-adoption process of the innovation, and (3) a communication agency support scale utilizing a nine point Likert-type rating scale to indicate extent of usefulness of varied information channels.

Findings. Within the three-year span for dissemination, only 19.6 percent of the sample were even aware of the selected innovation providing a severe limitation to the amount of information concerning the channels utilized and their importance. Of those respondents aware of the selected innovation, 43.8 percent reported the county extension agent as the most frequently used channel. Demographic data collected revealed that farmers aware of the innovation were more educated, predominantly full-time farmers, renting more farm acreage and producing higher soybean yields for both 1979 and 1980, with higher gross incomes.

KITTRELL, David L. "A Follow-Up Study of 1974-1980 Baccalaureate Degree Graduates in Agricultural and Extension Education at Mississippi State University." Staff Study, 1981, Mississippi State University, Mississippi State.

Purpose. This study was conducted to follow-up the 1974-1980 Baccalaureate Degree Graduates in Agricultural and Extension Education from Mississippi State University. Information sought included: present employment status, perceptions of course and experience requirements, perceptions on quality of instruction, advisement, personal and leadership skills developed.

Method. A follow-up questionnaire was developed by the investigator and mailed to all 165 graduates in this study. Names and addresses from departmental files were used to develop the mailing list. Responses were received from 136 or 82 percent of the graduates.

Findings. Major findings include: (1) graduates were gainfully employed and most were employed in the field of agriculture or education. Most graduates (82 percent) were employed in Mississippi, and 88 percent were employed with the Cooperative Extension Service, teach vocational agriculture, or hold leadership roles in many phases of agricultural industry; (2) most graduates felt comfortable with the curriculum but were generally undecided about the need for more or less general education and technical subject matter courses; (3) graduates were pleased with the performance of the instructors and feel they received quality advisement; (4) graduates were undecided on the importance of undergraduate research and communications courses; (5) graduates were generally undecided on whether the FFA helped develop personal and leadership skills; and (6) most of the graduates (70 percent) would select the AEE degree program if they had the choice to make again.

MCGREW, William T. "The Status of Supervised Occupational Experience Programs in Mississippi." Master of Science Thesis, 1981, Mississippi State University, Mississippi State.

Purpose. This study was conducted to determine the status of supervised occupational experience programs in Mississippi in 1981, as perceived by students in vocational agriculture.

Method. Data were collected from nine randomly selected schools in each of the four supervisory districts for a total of 1,342 responses. Data were collected via a mailed questionnaire and analyzed by frequencies, percentages and the Pearson product moment correlation technique.

Findings. Major findings include: (1) seventy-five percent of the students were engaged in some type of SOE program; (2) about two-thirds of these SOE programs were in the production agriculture area, with the next-largest area being agricultural mechanics and comprising 15 percent of the students; (3) about half of the students would, if provided the opportunity, repeat their exact same SOE program; (4) most (87 percent) indicated a belief that their SOE program would help them achieve their career goals; and (5) of those having SOE programs, 60 percent plan to enter an agricultural occupation.

MONAGHAN, Thomas A., Jr. "The Relationship Between Selected Forestry Background Information for Mississippi Counties and Forestry Programs Planned by County Agents Within the Mississippi Cooperative Extension Service." Doctor of Education Dissertation, 1981, Mississippi State University, Mississippi State.

Purpose. This study was designed to investigate the relationships between days allocated to forestry by Mississippi county agents in their Plans of Work and the following predictor variables: tenure of the agent, agent attitude toward county extension forestry programs, percentage of the county classified as commercial forest land, percentage of the county under private non-industrial forest ownership, annual value of forestry production, acres in need of silvicultural treatment, and acres in the county treated under cost-share programs. An additional purpose was to determine the effect of inservice training on the aforementioned relationships.

Method. The sample included 62 Mississippi Cooperative Extension Service (MCES) county agents and their counties. Tenure data were collected from the MCES Personnel department; a Semantic Differential was used to index attitude; forestry data for each county were collected from files in the MCES Forestry department; and data for the criterion variable of days allocated to forestry were taken from copies of the MCES Plans of Work. Inservice training was conducted by the Extension forester during fiscal year 1981. Pearson product moment correlation and multiple regression analyses were used.

Findings. Five of the eight predictor variables had positions, statistically significant relationships with the criterion variable of days planned for forestry before and after inservice training. Attitude was significantly related to the criterion variable before, but not after inservice training. Multiple regression analyses revealed that the predictor variables explained 38 percent of the variance in the criterion variable before inservice training and 30 percent following.

PERRITT, Roger Dale. "Effects of Two Instructional Techniques Used With the Performance of Mississippi Vocational Agriculture Students." Doctor of Education Dissertation, 1981, Mississippi State University, Mississippi State.

Purpose. The purpose was to compare the effects of two instructional techniques in Mississippi specialized agricultural mechanics programs using the Ford power train unit as an instructional aid.

Method. This study was a posttest-only control group experiment utilizing a 2 x 2 factorial design. The study tested for effects extended in time by adding a second cognitive posttest three weeks following the treatments. The independent variables were (1) the type of instruction, and (2) student mechanical aptitude level. Dependent variables were cognitive, psychomotor, and attitude posttest scores. The population consisted of 33 vocational agriculture departments with a power train unit. Three schools with ten students were assigned to Treatment A, traditional lecture-demonstration. Six schools with five students were assigned to Treatment B, small group self-study.

Findings. Major findings include: (1) differences between the treatment groups were not statistically significant when performance was measured immediately following the treatments; (2) a delayed cognitive posttest indicated that students in Treatment B scored significantly higher (.01 alpha level) than students in Treatment A; (3) student attitude toward the techniques did not differ significantly. A significant interaction between the technique and mechanical aptitude level did occur. This interaction indicated that student attitude toward an instructional technique was influenced by mechanical aptitude level.

MISSOURI

ANOCHILI, Boniface C. "Animal Science Activities Performed by Vocational Agriculture Instructors and Young Farmers in Missouri." Doctor of Philosophy Dissertation, 1981, University of Missouri-Columbia.

Purpose. The purposes of this study were to ascertain the animal science activities performed by selected young farmers and vocational agriculture instructors, to ascertain whether young farmers perceived the importance of animal science activities performed by farmers in a different manner than instructors, and to ascertain if the importance ratings of animal science activities and seven selected demographic variables of farmers were related.

Method. The sample consisted of 97 selected young farmers and 97 vocational agriculture instructors from a population of all persons engaged in production agriculture with membership in a local young farmer association and all vocational agriculture instructors who serve as young farmer advisors in Missouri. Two survey instruments, each containing 75 animal science items, were developed for the study; one for the young farmers and the other for the vocational agriculture instructors. There was an 86 percent and 84 percent return from the instructors and farmers respectively. These data were analyzed using a Statistical Analysis System (SAS) ANOVA package program with Duncan's multiple range test and the chi-square.

Findings. Significant differences were found between the response frequency ratios of the groups for 18 of the 75 activity statements. In the perception of the importance of the animal science activities, 22 out of the 75 activities were found significant. Significant differences were found in all but one (equipment holdings) of the variables of age, years of farming experience, land tenure, equipment holdings, types of enterprises, geographical location, and scope of operation.

The rank order of the activities for instructors revealed that 12 of the top 25 items were from the livestock production area while farmers ranked 7 activities each from the production and livestock selection areas in the top 25 activities in the survey.

BURHOE, Steven A. "A Comparison of Selected Characteristics of Teachers of Adults in Agriculture as Perceived by Teachers, Supervisors, and Teacher Educators." Doctor of Philosophy Dissertation, 1981, University of Missouri-Columbia.

Purpose. Research throughout the decades of adult program development in agriculture has found the teacher of the adult program to be the key person in its successful development and conduction. The research also indicated that there are questions of concern in the areas of the technical expertise and teacher qualifications needed by the teacher of adults in agriculture.

The primary purpose of this study was to ascertain if differences existed between the way the state supervisor of vocational agriculture in each state, one teacher educator for adult programs in agriculture in each state, Missouri vocational agriculture teachers, Missouri teachers of adults in agriculture, and teachers of adults in agriculture from the twelve state central region viewed selected characteristics and technical needs of teachers of adults. Secondary purposes were to ascertain if the teachers differed when grouped on the basis of selected demographic variables and to develop a profile of a teacher of adults in agriculture.

Method. The design of the study was ex post facto since it was not possible to exert direct control over the independent variables.

Randomly selected study samples were drawn from the Missouri secondary vocational agriculture teacher and the central region teacher of adults populations. The remaining three populations were used in their entirety. Instrumentation used consisted of descriptive data gathering forms for each group, the Teacher of Adults in Agriculture Profile, and the Adult Technical Needs Form. All forms were developed by the writer with the aid of a panel of experts and were pilot tested prior to use.

The data were analyzed using analysis of variance and non-parametric rank order statistical procedures. Null hypotheses were tested at an alpha level of .05.

Findings. The following conclusions were formulated as a result of the findings:

1. The views of teachers of adults on administrative and interpersonal job related functions were incongruent with the views of teacher educators, Missouri secondary teachers, and state supervisors.

2. Individuals preparing to be teachers of adults may need additional expertise and preparation in the technical areas related to farm/ranch business management.

3. The state supervisors of the Northeastern states would tend to place less emphasis on the development of local adult programs, less emphasis on confidentiality by the teacher of the adults, and a greater emphasis on involving the spouses of the adults than the respondents from the Southern, Central, and Pacific states.

4. The differences among teacher groups in rating the statements on the Teacher of Adults in Agriculture Profile can most often be explained in terms of their present teaching responsibilities with teachers of adults being older, teaching a larger percent of their own adult classes, and having an undergraduate emphasis in agricultural education, agricultural economics, or animal science.

DENKER, Robert, ROHRBACH, Norman and STEWART, Bob R. "Dissemination and Implementation of a Financial Management Program for Adult/Young Farmers in Vocational Agriculture Programs in Missouri." Staff Study, 1981, University of Missouri-Columbia.

Purpose. This project was Phase Two of a three-phased program to develop, disseminate, and implement a three-year sequenced individualized and group instructional program in financial management for adult/young farmers in vocational agriculture in Missouri. The objectives of the project were:

1. To disseminate the findings and materials developed in a 1979-80 project to 100 percent of the full/half-time adult teachers in Missouri through a series of workshops.

2. To implement the program in 33 Missouri schools in 1980-81.

3. To develop instructional materials for Unit II.

4. To develop two computer decision-making programs that can be accessed with remote terminals.

Method. The scope of the project included the following activities:

1. Developed curriculum Unit II--Analyzing a Farm Business.

2. Conducted 30 workshops (series of 5 in 6 locations) to disseminate the findings of a project in Phase One.

3. Fifty-one local teachers enrolled in the workshops and implemented the program in their schools.

4. Developed two computer decision-making programs that can be accessed with remote data terminals.

Findings. A larger than expected number of teachers enrolled in the series of workshops (51 versus 33) and implemented the instructional program in their schools in 1980-81. Average attendance at the workshops was 89 percent and evaluations of the workshops indicated an overall rating of 8.01 (scale of 1 to 9) on effectiveness. An evaluation of a random sample of 20 percent of the enrollees showed an overall rating of the Unit I instructional program of 97.6 percent "very useful" or "useful" and 2.4 percent as "not worthwhile."

Results of this project will have important implications for adult education in Missouri. Projecting the present rate of adoption of the curriculum materials, implementation of the program by local teachers, and enrollment of adults in the program, it is anticipated that within five years 50 percent of the schools will participate with a projected enrollment of 2,000-3,000 individuals (1,000-1,500 families).

DYRENFURTH, Michael and LINHARDT, Richard. "The Development of a Vocational Safety Guide for Missouri's Practitioners." Staff Study, 1981, University of Missouri-Columbia.

Purpose. The purpose of this project was to develop a comprehensive vocational education safety guide for local administrators and teachers. In developing this guide, the project team had as their overriding objective the goal of developing information that would be comprehensive enough to incorporate all aspects of vocational education and yet be feasible in terms of adaptability to any vocational program.

Method. To generate the safety guide, a review of the key related research, literature and federal and state legislation was conducted. The literature review included existing vocational safety guides from eighteen states, reference material from the National Safety Council, relevant safety education materials identified through an ERIC search, and various other local, state and national agencies. An advisory committee composed of local administrators, Missouri State Department of Elementary and Secondary Education supervisors, representatives from NIOSH and OSHA, and University of Missouri-Columbia personnel also provided information and guidance in selection of material for this guide.

The purpose of the review was to identify compliance of requirements, outline major areas of vocational activity and to specify various data important to the safety of vocational students. Once such data were collected and analyzed, the guide was then developed. Major areas of safety concerns common to all vocational education programs were identified. Guidelines specific to each concern were then developed. The guidelines were verified by recognized vocational leaders throughout the state of Missouri as they served on the advisory committee for this project.

The guide as developed contains major sections on: Missouri specific laws, level of responsibilities, liability, safety program recommendation actions, facilities and equipment, personal protective equipment, and vocational special needs students. In addition, a reference listing of textbooks, articles and state and national resource agencies was compiled as part of the guide.

Findings. The following are some of the long-range benefits which can come from organized school accident-prevention programs developed from the guides:

1. Students will develop a safety consciousness including appropriate safety attitudes and judgments which they can take into their future field of employment.

2. Students will develop the ability to identify work-related risks and act accordingly.

3. Students will learn self-discipline and be able to understand and live with work-related authority.

4. Students will be prepared to cope with the obvious and presumed hazards in the work place, and business and industry will be assured of their basic capabilities in safe working.

5. Public tax money will be conserved through effective accident prevention programming.

6. Administrators and teachers will be more aware of their responsibilities and liabilities.

Although this safety guide was developed for the state of Missouri, it should be applicable in other states at all levels of vocational education and all types of institutions as well.

KIRTS, Carla A. "The Problem Solving Approach as Related to Questioning Strategies of Student Teachers of Vocational Agriculture." Doctor of Philosophy Dissertation, 1981, University of Missouri-Columbia.

Purpose. The purpose of the study was to ascertain the effects which classroom experience using the problem solving approach had on the questioning strategies of student teachers of vocational agriculture. The following research questions were investigated. To what extent:

1. were there significant differences in the questioning strategies of student teachers of vocational agriculture with varying levels of classroom experience using the problem solving approach?

2. were there significant differences among each of the seven measures of questioning strategies obtained for student teachers of vocational agriculture and their rated proficiency in the use of the problem solving approach?

3. were there significant differences among each of the seven measures of questioning strategies obtained for student teachers of vocational agriculture and the final grade assigned for student teaching?

4. does the cognitive level of questioning strategies used by student teachers of vocational agriculture using the problem solving approach differ from the cognitive level of questioning strategies used by teachers and student teachers as depicted in the review of related literature?

Method. The sample included 19 student teachers enrolled for professional education courses during the fall semester of 1980. The student teachers audiotaped lessons representing no experience, one week of experience, and four weeks of experience using the problem solving approach. The audiotapes of 14 (74 percent) student teachers were used in the final analysis.

The Questioning Strategies Observation System (QSOS), developed by Morse and Davis, served as the instrument used for measuring question quantity, cognitive quantity, cognitive quality, tactical versatility, question success, reaction quality, and cognitive versatility. The Observation Guide for Student Teachers, an instrument developed by the Agricultural Education staff at the University of Missouri-Columbia, was used to rate the proficiency of the student teachers in using the problem solving approach.

The study utilized a repeated-measures design and data were analyzed using univariate analysis of variance. A posteriori contrasts were performed on the least squares means for experience when the variable was significant at the .05 alpha level to isolate the source of the significant difference.

Findings.

1. Questioning strategies remained relatively stable except for cognitive quantity and reaction quality for the student teachers of vocational agriculture with three levels of classroom experience using the problem solving approach.

2. Questioning strategies were not different for student teachers of vocational agriculture grouped by proficiency using the problem solving approach.

3. Questioning strategies were not different for student teachers of vocational agriculture grouped by their final grade for student teaching except for cognitive quantity scores which were higher for student teachers who received a B for student teaching than those who received an A.

4. Student teachers of vocational agriculture using the problem solving approach asked more higher level questions, more lower level questions, and fewer procedural questions than teachers and student teachers not using the problem solving approach as depicted in the related literature.

LONG, Billy R. "Agricultural Mechanization Activities Performed by Selected Young Farmers and Vocational Agriculture Instructors in Missouri." Doctor of Philosophy Dissertation, 1981, University of Missouri-Columbia.

Purpose. The purposes of this study were to ascertain what mechanical activities are performed by young farmers and what mechanical activities can be performed by vocational agriculture instructors, to ascertain whether young farmers participating in adult education programs perceived the importance of mechanical activities performed by farmers in a different manner than instructors, and whether the importance of the activities and selected farmer demographic variables were related.

Method. The sample consisted of 97 deliberately selected young farmers and 97 vocational agriculture instructors from Missouri. The instruments used were the Vocational Agriculture Instructor Survey and the Young Farmer Survey. Data were analyzed using chi-square and one-way analysis of variance procedures. Null hypotheses were tested at an alpha level of .05.

Findings.

1. Fewer vocational agriculture instructors were found who could perform 14 of the mechanical activities than young farmers who did perform the activities. Thus, it was concluded that vocational agriculture instructors would profit from in-service training in selected areas.

2. Twenty-one activities were rated significantly higher in importance by instructors than by young farmers. Inasmuch as the instructors' responses were either congruent with or higher than young farmers' responses for all but three of the activities, it was concluded that vocational agriculture instructors would support a comprehensive curriculum which would meet or exceed the agricultural mechanic training needs of production farmers.

3. Farmers in south central Missouri, livestock farmers, farmers farming small acreages, or farmers who own but do not rent their farmland, placed lower importance on numerous mechanical activities. Therefore it was concluded that these farmers may have less perceived need for training in selected agricultural mechanic activities than other farmers in Missouri.

4. There was congruence between the perception of high importance by the young farmers and high percentage of ability to perform by instructors, and the perception of low importance by young farmers and low percentage of ability to perform by instructors. Therefore it was concluded that vocational agriculture instructors are generally receiving proper emphasis in their pre-service and in-service preparation in the area of agricultural mechanics.

PETTY, Gregory C. and STEWART, Bob R. "Affective Skills of Selected Agricultural Workers and Supervisors." Staff Study, 1980, University of Missouri-Columbia.

Purpose. The purpose of the study was to ascertain if a difference existed between the affective competencies exhibited by production and agribusiness workers in agriculture and between supervisors and workers in agriculture.

Method. The study utilized an ex post facto design. The independent variables were area of work and job function. The dependent variables were the 15 affective work competencies.

A random selection of agricultural employers representing agribusiness and production agriculture was obtained from a list maintained by state vocational placement specialists. An approximate number of inventories as specified by the cooperating businesses were mailed to each. Participating employers administered the instruments themselves and returned the raw data for analysis. A total of 550 usable responses were obtained from some 1,000 inventories made available to employers for a 55 percent return.

Data were analyzed using a two-way multivariate analysis of variance statistical procedure. Unequal cell (stratum) sizes required a procedure allowing use of unequal N's. Hotelling-Lawley's Trace test criteria was the method used to determine the overall statistical significance.

Findings.

1. Significant differences existed between agribusiness workers and agricultural production workers in their ratings of five affective work competencies. Therefore, Ho_1 was rejected.

The five affective work competencies that were significantly different were: AWC1--Ambitious, AWC6--Accurate, AWC11--Perservering, AWC12--Neat/Orderly, and AWC15--Dedicated. In all cases, the agribusiness worker ratings were higher than the production worker ratings.

2. Significant differences existed between agricultural supervisors and workers in their perception of five affective work competencies. Therefore, Ho_2 was rejected

The five affective work competencies that were significantly different were: AWC2--Cooperative, AWC4--Considerate, AWC10--Emotionally Stable, AWC14--Efficient, and AWC15--Dedicated. In all cases, the supervisor ratings were higher than the agricultural worker ratings.

YAYOCK, Bobai D. M. "Crop Production Activities Performed by Young Farmers and Vocational Agriculture Instructors in Missouri." Doctor of Philosophy Dissertation, 1981, University of Missouri-Columbia.

Purpose. The purposes of the study were to ascertain what crop production activities were performed by selected young farmers and what crop production activities could be performed by the instructors. Also, to ascertain whether or not young farmers participating in adult education programs perceived the importance of crop production activities performed by farmers engaged in production agriculture in a different manner than did their instructors, and whether or not the importance of crop production activities and selected demographic variables were related when compared for farmers.

Method. A survey instrument was developed using a yes and no response and a six-point Likert-type scale to collect data about crop production activities from both groups. Significant differences between the responses of the two groups were determined by using a chi-square analysis. Analysis of variance was used to test for the differences among the means on the rating of importance between the groups and for young farmers, when grouped by demographic variables. The study used an ex post facto design and the null hypotheses were tested at an alpha level of .05.

Findings. There were significant differences between the response frequency ratios for 40 of the 79 crop production activities. There were significant differences between the groups in the perceptions of importance of 41 of the 79 crop production activities and among farmers for each of the seven demographic variables. When the 26 highest ranked items were compared between the groups, instructors had included 81 percent of the items found in the young farmer's ranking. The data supported the following conclusions:

1. Instructors could profit from in-service training in selected areas of crop production.

2. Instructors would emphasize crop production activities to an extent equal to or greater than that needed as indicated by young farmers.

3. Young farmers from different geographic locations or who have different types of enterprise combinations will view the importance of crop production differently and instructors should adjust programs of instruction accordingly.

4. There is basic congruence in the perceptions of the groups as to the relative importance of crop production activities.

MONTANA

SMITH, Douglas G. "The Role of the Governor's Ad-Hoc Committee on Agriculture in Determining Agriculture Policy in Montana" Master of Science Thesis, 1980, Montana State University, Bozeman.

Purpose. The purpose of this study is to determine the perceptions of selected individuals and groups about the role of the Governor's Ad-Hoc Committee on Agriculture in determining agriculture policy in Montana.

Method. One-hundred-seventy-five questionnaires were mailed to the study population with one-hundred-nineteen or 68% being returned.

Findings. Montana Farm organizations and commodity groups have a more harmonious relationship in 1980 as compared to 1971 due to the establishment of the Governor's Ad-Hoc Committee on Agriculture. Controversial issues should not be discussed and voted upon at the Ad-Hoc meetings. The Governor's Ad-Hoc Committee is not the only public forum for the agriculture community. Press coverage of the meetings and activities of the Governor's Ad-Hoc Committee on Agriculture is not adequate. Goals and objectives of the Governor's Ad-Hoc Committee are not clearly defined or understood. The Governor's Ad-Hoc Committee on Agriculture is a sounding board for new proposals and ideas. A good understanding of the role and scope of Montana State University and its contributions to the agriculture community is understood by the farm organizations and commodity groups. Montana legislators do not present proposed legislation to the Governor's Ad-Hoc Committee on Agriculture. The Governor's office consults the farm organizations and commodity groups for advice and counsel.

WALSH, Kenneth M. "Validation of Professional Competencies Needed by Teachers of Vocational Agriculture in Montana." Master of Science Thesis, 1981, Montana State University, Bozeman.

Purpose. The primary purpose of this research was to determine the relative importance of professional competencies as perceived by teachers of vocational agriculture in Montana. The researcher also compared the vocational agriculture teachers' perceptions with those of the post-secondary staff, the State Supervisor, and teacher educators of agricultural education. In addition, perceptions of vocational agriculture teachers were studied according to selected demographic characteristics including: enrollment in high school vocational agriculture; previous FFA experience in high school and/or college; number of years experience teaching vocational agriculture; and number of vocational agriculture teachers in the school.

Method. Questionnaires were mailed to all vocational agriculture teachers (N = 77), the State Supervisor of Agricultural Education, and agriculture teacher educators (N = 3).

Findings. The analysis of data using measures of central tendency, revealed that of the 124 competencies studied, 88 (71 percent) and 103 (83 percent) of the competencies were perceived as considerable to of great importance by secondary teachers and post-secondary staff, respectively. t-test results showed that significant differences were found in four of the competency categories between teachers who were enrolled in high school vocational agriculture with those that were not enrolled, and two competency categories for teachers who were members of the FFA in high school and/or college, compared with those teachers who were not members in the FFA.

NEW HAMPSHIRE

FOSTER, Lenette N. "An Evaluation of Cooperative Extension Service Printed Materials Which Contribute Toward Building Family Strengths." Master of Occupational Education Thesis, 1981, The University of New Hampshire, Durham.

Purpose. The purpose of this study was to prepare an evaluated bibliography of Cooperative Extension Service printed materials which further the knowledge and characteristics of family strengths.

Method. The method followed was to gather existing material from all fifty states. An evaluation instrument was developed based on the work of Stinnett & Carkhuff. This instrument was used by New England Agents to screen the materials received. A group from Maryland and Washington were used to evaluate the group of materials.

Findings: Findings from the study indicated that 4.4 percent of the Cooperative Extension Service materials evaluated dealt at the effective or in-depth levels with building family strengths. A larger number of publications, 18 percent, mentioned the various criteria as being desirable but did not suggest or explain how to achieve the characteristics, or incorporate them within the framework of project-type activities. The criterion good communication skills was rated by the evaluators to have the potential for minimal to effect impact in 14 percent of the publications. Appreciation for individuals within the family was rated similarly in 13.2 percent; commitment to the family as a unit in 12.8 percent; time spent together in 6.4 percent; and handling crises in a positive manner in 6.0 percent of the publications.

SPENCE, Thomas W. "The Current Status and Future Outlook of Roadside Market Vegetable Production In Northeast Massachusetts and Southeast New Hampshire." Master of Occupational Education Thesis, 1979, The University of New Hampshire, Durham.

Purpose: To find out what the present status and future outlook of roadside market vegetable production in northeast Massachusetts and southeast New Hampshire.

Method: Collection of data was by interview from sixty people involved with the roadside market vegetable production industry who were randomly selected from the 1978 Membership List of the New England Vegetable Growers Association. These people were categorized into three groups: twenty roadside market vegetable growers, twenty agricultural government agents, and twenty commercial suppliers that supply agricultural supplies to vegetable growers.

Findings: The major findings include: (1) Quality merchandise and the most important characteristics that draw people to a roadside market. Price cannot be overlooked, but as long as quality and freshness are displayed people will purchase from roadside markets; (2) The season for best sales potential can help one in the management of a roadside market. June - October, this was noted by many of the interviewees as the sweet corn season and as the peak of harvest time for native vegetable crops. All interviewees rated January - March as having the least roadside market sales potential. October - December was rated as having the second least roadside market sales potential. The representatives of roadside market sales potential. The representatives of roadside market vegetable growers from Massachusetts rated April - May as the second best season for roadside market sales potential. This season is the bedding plant season in which roadside markets have high sales. Representatives of roadside market vegetable growers from New Hampshire rated June - July 20 as the second best season. It was noted by the New Hampshire growers that June - October is the tourist season as well as having to start tillage later because of the later spring in New Hampshire; and (3) The interviewees agreed that there is economic opportunity for more roadside markets and that the roadside market industry is growing.

LICHTENSTEIN, Stephen J. "A Do-It-Yourself Guide for the Development of Individual Vocational Education Programs (IVEP's) for Disadvantaged Students." Staff Study and Product, University of New Hampshire, Durham.

Purpose. The purpose of this product was to create an orderly system for providing and documenting program modifications for disadvantaged students enrolled in vocational agriculture programs in New Hampshire. Vocational Agriculture in New Hampshire serves the highest percentage of special needs students of all the vocational offerings.

Method. An Advisory Committee of Vocational Special Needs Coordinators and Service Providers was established to develop a coordinated process that could be employed at high schools and vocational schools. A collection of pertinent materials was synthesized from available forms, instate and out-of-state literature. Vocational Special Needs Personnel field-tested the form and process over a six-month period.

Findings. A product has been developed and distributed to key personnel to implement a more efficient system of developing IVEP's (required by the New Hampshire State Department of Education) for disadvantaged students.

NEW JERSEY

INOS, Faustino I. "A Survey of Farmers' Participation in the Development, Operation, and Management of Selected Irrigation Systems in the Philippines." Doctor of Education Dissertation, 1981, Rutgers - The State University of New Jersey, New Brunswick.

Purpose. Three objectives were established for the study: (1) to document and analyze the Farmers' Assistance Delivery Program in Philippine irrigation systems; (2) to explore the factors which encourage the particpation of farmers; and (3) to identify those operational and managerial functions the farmers have participated in and the additional roles they would like to assume from the irrigation personnel.

Method. The study was conducted in Camarines Sur, Philippines. Two national systems and two communal systems were used as study sites. The respondents were 84 farmers and 41 technicians. Interview schedules were used in the collection of data and other supporting information. Percentages, rankings, chi-square, and mean values were used to answer descriptively and statistically the questions set forth in the study.

Findings. The study documented the status of the farmers' assistance delivery program in Philippine irrigation systems.

Responses to the interviews suggested that farmers were willing to participate in irrigation development and management. Communal farmers were more positive in their perceptions of participation than were the national farmers. Lack of a functional participation model for farmers was one of the limiting factors that seemed to be associated with non-participation. Farmers in both types of systems were more inclined than were the technicians to demand additional roles for the water-users.

Prominently chosen as channels for the participative roles of farmers were the farmers' committee and the joint committee of farmers and irrigation personnel. The farmers strongly endorsed the creation of a water management committee and an agricultural development committee in irrigation associations. Committees on extension education, membership and constitution and by-laws were not perceived as important.

NEW YORK STATE

APPLEBEE, Glenn J. "Career Path Perceptions: Impact on Staff Turnover and Implications for Cornell Cooperative Extension Staff Development." Master of Professional Studies Project, 1981, Cornell University, Ithaca, New York.

Purpose. The purpose of the project was to examine the relationship of career path planning to professional staff turnover in Cornell Cooperative Extension.

Method. The population consisted of 507 Cornell Cooperative Extension Field Staff and 27 Cornell Cooperative Extension Administrative Staff. Data were collected by administering a survey instrument to obtain information related to career paths and staff development in Cornell Cooperative Extension. The instrument provided for the determination of Cornell Cooperative Extension Field Staff perceptions of career paths, and career planning and the relationship of career paths and career planning to field staff turnover.

Findings. The major findings of this study were: (1) Cornell Cooperative Extension Staff are not clear on what Extension career paths exist or how they go about learning about career paths. (2) There is a relationship between career path knowledge and turnover among professional staff. (3) There is a relationship between perceptions staff have in regard to their ability to move on career paths, and the turnover rate in Extension. (4) There is a relationship between the length of employment of staff and dissatisfactions caused by career path knowledge.

DAVIS, Ronald Edmund. "Surveying and Land Measurement." Master of Professional Studies, Project Report 1981. Cornell University. 146 pp. Department of Education, Cornell University, Ithaca, New York 14853.

Purpose. The purpose of this project was to provide training materials in surveying and land measurement at an applied, practical level for secondary and post-secondary students. Topics, identified through a teacher survey and the Instructional Materials Service Advisory Committee, were selected and developed for students with a limited scope in mathematics.

Method. Selected teachers identified items of major concern where information or training tools were lacking. A format was adopted, content carefully selected and a series of units were developed to provide methods and materials for teaching cognitive learning, psychomotor skills and affective learning opportunities desirable to the identified students. Field testing of the core materials provided input for any suggested changes or additions.

Product. Two sets of materials were produced. The "Student Workbook" package consists of two hands-on activity booklets for students: one with twenty-four self explanatory lab problems and another with eleven workbook exercises. The student workbooks provide information and learning activities including vocabulary, problem sets, abbreviations, equivalent values, equipment identification, adjustment and operation. 89 pp. $3.50. A second set of materials comprise the "Teacher's Package," including copies of the two workbooks, resource units, answers to student exercises, student evaluation tools, teaching suggestions, transparency masters, a suggested inventory of equipment and other supplemental information. 146 pp. $6. The packages may be purchased from Instructional Materials Service, Stone Hall, Cornell University, Ithaca, New York 14853.

SMITH, William Manley. "A Survey of the Status of Agriculture and the Need for Secondary School Agricultural Education in Jamaica." Thesis M.S., 1981. Department of Education, New York State College of Agriculture and Life Sciences, Cornell University, Ithaca, New York 14853.

Purpose. The purpose of this study was to assess the need for secondary school agricultural education in the development of the Jamaican economy; and to determine the extent to which current agricultural education programs are meeting the specific needs for education in agriculture.

Method. The investigator reviewed selected research studies, books, mimeographs, government documents relating to technical and vocational education, and appropriate national statistics to provide the context and data for the study. Also an interview of twenty-one Jamaican educators was conducted to obtain their perceptions on questions designed to determine the need for secondary school agricultural education in Jamaica.

Findings. The major findings include: (1) Jamaica is still agricultural more than industrial and the agricultural industry is the largest employer of the labor force. However, comparatively it makes a smaller contribution to the GNP. (2) Agricultural importation is resulting in negative agricultural trade balances. Their reversal and overall national development are viewed as dependent on the development of the agricultural industry as the chief productive sector of the economy. (3) Planning in agriculture appears appropriate but there are major problems including low level skills, know-how and managerial ability of farmers and inadequate supply of qualified personnel for a dynamic extension service. (4) Because of a lack of adequate coordination between the ministries of Agriculture and Education, secondary school agricultural education programs are not sufficiently articulated to meet the educational needs of agriculture. (6) Agricultural education is recognized by twenty-three Jamaican educators as important to be offered in secondary schools and to receive continued promotion from government and educational planning.

STEEL, Joel Samuel. "The Container Production of Nursery Stock." Master of Professional Studies, Project Report 1981. Cornell University. 242 pp. Department of Education, Cornell University, Ithaca, New York 14853.

Purpose. The purpose of this project was to develop educational resource manuals for instruction and students in secondary and post-secondary horticulture curriculums.

Method. As a technical specialist in a post-secondary horticulture program, the author noted the urgency for the development of instruction manuals in the more technologically advanced container culture sector of nursery production. With the assistance of professors at a two-year agricultural and technical college, a model for the eventual product was developed in 1980 and field tested with a group of second-year nursery production students.

Product. Evolving from the original model, a more structured format consisting of separate instructors' and students' manuals was designed and implemented. The finished project contains carefully selected units based on a regional and industry assessment of needs. Each manual is separated into sectors dealing with financial/management decisions and cultural practices. Eventual distribution is planned through the Instructional Materials Service, Cornell University.

WANDIL, Michael. "The Need for an Instructional Materials Service for the Agricultural Colleges in Papua New Guinea." Master of Science Thesis, 1981, Cornell University, Ithaca, New York 14853.

Purpose. The general purpose of this study was to ascertain the need for an instructional materials service to enhance the effectiveness of the teaching-learning process at the agricultural colleges.

Method. A pre-coded questionnaire was designed and administered to the lecturers and an interview schedule was used to collect data from decision makers in the colleges. These instruments were pre-tested and revised at the Highlands Agricultural College. Seven decision makers and 43 lecturers participated in the study.

Findings. Major findings include: (1) the majority of lecturers lack professional training and experience to select and develop suitable teaching aids; (2) lack of information on material sources limits the use of certain teaching aids; (3) the majority of lecturers and decision makers wanted an instructional materials service for the colleges; (4) the decision makers endorsed the idea that each college should have a teaching aids center, supplied and coordinated by a central office. A specialist should be placed in charge of carrying out the functions of the instructional materials service; (5) more than 50 percent of the lecturers wanted instructional materials in the following subject areas: basic studies, crops, livestock, farm management, and rural technology; (6) procedural ideas favored by the majority of lecturers for materials selection and development were: materials selection should be carried out at the end of an academic year; special leave should be granted to lecturers to author new materials; selection of suitable teaching aids should be based on a criteria checklist; and development of new instructional materials should be the responsibility of a committee of lecturers plus a subject matter specialist.

NORTH CAROLINA

MILLER, Texton R. "The Development of A Computer-Based Program to show Longitudinal Trends of Teacher and Program Characteristics in Vocational Agriculture." Staff Study, North Carolina State University.

Purpose. The purpose of this study was to develop a computer program to facilitate the yearly retrieval of available state-wide data which could reveal trends in the characteristics of the teacher group and in the programs they conduct.

Method. A cooperative relationship was established with key personnel in the Department of Public Instruction to obtain computer tapes of selected teacher and program characteristics. These personnel developed a computer program which drew data from four different departmental files. Technical assistance from the N.C.S.U. Department of Statistics developed a computer program to integrate the data and provide the desired print-out. Data were included only from teachers with ten or more months of employment. The project was conducted on a part-time, ad-hoc basis without special funding between 1975 and 1981.

Findings. A computer-based program was developed which (1) enabled the tabling of four years of data (1977-1980) on 16 teacher or program characteristics and (2) provided a system to update these data on a yearly basis with a minimum of time and expense. Over the four year period, declines were noted in student enrollment per teacher, class size, multiple-teacher departments, and the number of teachers in the 40-44 age group. The largest single change was an increase in the percentage of teachers paid twelve months on vocational funds: 50 percent in 1977 to 71 percent in 1980. There were increases shown in the number of teachers under 25 years of age and the number of female teachers of agriculture. Little change was recorded for the ratio of black to white teachers, the type of certificate held, the percentage with master's degrees or in vocational versus non-vocational school duty time.

NORTH DAKOTA

SCHANDER, Frank J. "Determining the Need for Tools in Vocational Agriculture Mechanics Laboratories in North Dakota." Master of Science Colloquium Paper, 1981, North Dakota State University, Fargo.

Purpose. The purpose of this study was to determine the need for tools used in vocational agriculture mechanics laboratories in North Dakota.

Method. A survey questionnaire was developed and pilot tested on a sample group of respondents. The completed questionnaire was administered to vocational agriculture instructors during the North Dakota Vocational Association Conference in 1980. The teachers that were not in attendance were mailed a questionnaire. A total of 58 teachers met the criteria necessary to be included in the study. Fifty-five questionnaires were received resulting in a 94.8% usable response. Each teacher responding was asked to provide the name of an advisory council member. These advisory council members were also sent questionnaires. A total of 27 usable responses was received. The respondents were asked to rank the importance of each tool item on the questionnaire. The rankings were then given a mean weighted score. Chi-square was used to compare the results of the two respondent groups.

Findings. Tools in the areas of the basic agriculture sketching, soil and water engineering, basic electricity, concrete and masonry, plumbing and pipe fitting, engine test equipment, shop safety equipment, and shop furnishings were the most closelyrated by vocational agriculture instructors and advisory council members. The two groups agreed quite closely in the need for hand tools in carpentry, welding and metals, and

power mechanics. The vocational agriculture instructors and advisory council members agreed, but less closely, in the need for power tools in carpentry, welding and metals, and mechanics. In most instances, the advisory council members rated tools at a slightly lower priority than did the vocational agriculture instructors.

WARNER, Lyle, B. "Reasons Why Students Do Not Complete Two Year Post Secondary Farm Management Programs in North Dakota." Master of Science Colloquium Paper, 1981, North Dakota State University, Fargo,

Purpose. The purpose of this study was to identify the major reasons why students, enrolled in two year post secondary Farm Management Programs, at the five post secondary institutions in North Dakota from 1975-1979, did not complete the prescribed course of study in which they enrolled.

Method. The survey questionnaire was developed and pilot tested on a sample group of respondents. The completed questionnaire was mailed to the 128 students included in the population. After an additional mailing and a post card were sent out, 75 usable responses were received resulting in a 58.6 percent usable response. Eight additional new respondents were contacted by telephone and asked 15 randomly selected questions. After comparing the responses of the respondent, and the non-respondents, it was determined that they responded similarly.

Findings. The majority of the students who dropped out of the program before completing the prescribed course of study did so before the beginning of the second year of the program and made the decision themselves. Most lived within 100 miles of the school they were attending, were not involved in extra-curricular activities and had a grade point average of 2.51-3.00 on a 4.00 scale. The primary reason for dropping was to go into business on their own. None of the factors ranked above "some importance", therefore it might be assumed that a multiple of factors prompted them to drop out. The greatest weakness of the programs, as perceived by the students was the fact that classes were too theoretical. As a whole, the study did not point out any specific areas in dire need of major change.

OHIO

ALNASSAR, Saleh N. "Professional Job Knowledge and Skills Needed By Extension Personnel in the Central Region of Saudi Arabia." Ph.D. Dissertation, 1981, The Ohio State University, Columbus.

Purpose. The major purpose of this study was to identify and describe the professional job knowledge and skills needed by extension personnel in the central region of Saudi Arabia. The specific objectives of the study were (1) to describe extension personnel in the central region of Saudi Arabia on selected personal and professional characteristics, including age, professional position, tenure, formal education, and training attended; (2) to identify the two dimensions of extension personnel training needs, i.e., the calculated and perceived training needs in six areas of professional job knowledge and skills; (3) to determine the relationship between calculated and perceived training needs of extension personnel; and (4) to determine the relationship between perceived importance, knowledge, calculated and perceived needs and selected personal and professional characteristics. The two dimensions of extension personnel job knowledge and skill needs were obtained in the literature.

Method. In this study the author used two indicators to measure the training needs. The first indicator is the perceived training needs (respondent's felt needs). The second indicator was in indirect approach to measure training needs which was calculated by subtracting the perceived knowledge score from the perceived importance score and multiplying the result by the importance score (I-K) (1). The basic information related to this study was collected from extension personnel in the central region of Saudi Arabia through interviews.

Findings. The results of the study indicated that: (1) Extension personnel's calculated and perceived training needs in the six areas of job knowledge and skills ranged from three to four on a five-point scale. (2) Calculated and perceived training needs were negatively correlated. It appears that needs based on knowledge and importance rating yield quite different results than needs identified by asking people what they perceive as needed. (3) Older personnel appeared to both need and desire training to a greater extent than younger personnel. (4) Personnel who have been employed for more years show a greater need for training.

ARRINGTON, Larry R. "Relationship of Length of Vocational Agriculture Teacher Contract to Supervised Occupational Experience Program Scope and FFA Chapter Activity Level." Ph. D. Dissertation, 1981, The Ohio State University, Columbus.

Purpose. This study was designed to determine if length of vocational agriculture teacher contract was related to both Future Farmers of America chapter activity level and supervised occupational experience program scope.

Method. Two questionnaires were used to gather data. The first questionnaire gathered information from 52 central Florida vocational agriculture teachers concerning FFA chapter activity level and six extraneous variables: length of teaching experience, percentage of students from a rural area, teacher

having a part-time job, extent to which teacher had high school vocational agriculture, teacher perception of release time available, and teacher perception of travel money available. The second questionnaire gathered information from twelfth grade students regarding the scope of supervised occupational experience programs and the number of supervisory home visits they received. Pearson product moment correlation coefficients and step-wise multiple regression analysis were used to test the major hypotheses.

Findings. Findings revealed a positive relationship between supervised occupational experience program scope and the following independent variables: length of teaching contract (r=.66), teacher having high school vocational agriculture (r=.27), percentage of students from a rural area (r=.51), teacher assistance with fairs (r=.30), and number of supervisory home visits (r=.45). In addition, there was a positive relationship between FFA chapter activity level and the following independent variables: length of teaching contract (r=.54), teacher having high school vocational agriculture (r=.33), percentage of students from a rural area (r=.48), teacher assistance with fairs (r=.49), and number of supervisory home visits (r=.48).

Using step-wise multiple regression, supervised occupational experience program scope was significantly related with length of teaching contract and percentage of students from a rural area when all other variables were statistically controlled. FFA chapter activity level was not significantly related with any of the independent variables when extraneous variables were held constant.

CLARK, Charles D. "The Influence of Job Satisfaction, Perceived Job Alternatives, and Central Life Interests on the Job Turnover Intentions of County Extension Agents." Ph.D. Dissertation, 1981, The Ohio State University, Columbus.

Purpose. The research examined how the perceptions of alternatives to the present job and work values influence the formation of intentions to remain in or leave a county extension agent position. It was hypothesized that perceived job alternatives and work values would moderate the linkages in the Mobley model of the turnover process. The model postulates that (1) low current job satisfaction leads to (2) thoughts of leaving or staying which leads to (3) intentions to leave or stay.

Method. Two measures of work values were used. The relationships between job satisfaction and work values were examined. Data were collected from county extension agents in Ohio by mail questionnaire.

Findings. Of the several measures of perceived alternatives employed, only the expected satisfaction with the alternative to the present job moderates the linkages specified in the model. Expected satisfaction with the alternative was found to moderate both the current job satisfaction-thinking of leaving linkage and the thinking of leaving-intentions to leave linkage.

One of the measures of work values (Work as a Central Life Interest Scale) moderated both the current job satisfaction-intentions to leave linkage and the thinking of leaving-intentions to leave linkage. The other measure

of work values (Work Role Centrality) moderated only the thinking of leaving-intentions to leave linkage. There was a low to moderate relationship between the two measures of work values. Work values were found to be related to satisfaction with the work itself, promotional opportunities, co-workers, and supervision subscales of the Job Descriptive Index.

HEDGES, Lowell E. and GLIEM, Joe. "An Inservice Education Project On Continuing Education in Agriculture." Staff Study, 1980, The Ohio State University, Columbus.

Purpose. The study was designed to organize and conduct a workshop in "Energy Management in Agriculture," specifically for teachers of vocational agriculture in identifying specific energy needs in agriculture; ways to conserve energy so that these needs can still be met in the future; assistance in helping the workshop enrollee identify, develop, and incorporate suitable units in the local course of study; and to develop lesson plans that will aid in accomplishing the objectives of the units.

Method. The workshop topics were selected by vocational agriculture teachers, faculty members of the Agricultural Engineering Department, and the investigators. Workshop sessions were taught by faculty of the Agricultural Engineering Department and the Ohio Agricultural Research and Development Center and the investigators.

Findings. Ten sessions were conducted. Workshop enrollees prepared lesson plans for each of the sessions, using the problem-solving approach to lesson planning and teaching. A publication, "Student Activities Related to Energy Management," was developed by the enrollees.

HERRON, Clifford J. "The Relationship Between Selected Factors and Indicators of Quality of Housing in Guernsey County, Ohio." Ph.D. Dissertation, 1981, The Ohio State University, Columbus.

Purpose. The primary purpose of this study was to measure and analyze the relationship between selected factors and indicators of quality of housing in Guernsey County, Ohio. A secondary purpose was to examine the relationship between selected factors and the degree of satisfaction with housing.

Method. The study sample consisted of seven hundred seventy-nine randomly selected homeowners in Guernsey County, Ohio. Data were collected during the winter of 1977-78.

A total of seventy-nine factors and indicators were used and categorized under the appropriate headings of: (1) Quality of Housing Variable; (2) Satisfaction With Housing Variable; (3) Convenience of Facilities Variable; and (4) Feeling About Neighborhood Variable. A pilot test was conducted by the Cambridge Planning Department and the County Cooperative Extension Office to refine the instrument for administration to the sample. Statistical techniques used in analyzing the data included measurements of central tendency, Kendall's tau b correlation, and Cramer's V.

Findings. The major findings of this investigation revealed that the typical homeowner expressed a positive feeling about his/her housing. Also, the homeowner reported a positive feeling about his/her neighborhood and about the convenience of facilities.

NEWCOMB, L.H. "Development of Materials for Analyzing Teaching Methods in Agriculture which Meet the Needs of Handicapped and Multicultural Populations." Staff Study, 1981, The Ohio State University, Columbus.

Purpose. The purpose of this project was to redesign the format of the undergraduate teaching methods course to include clinical analysis of teaching episodes with an emphasis on providing for the instructional needs of handicapped students. This project consisted of developing twenty video tapes of instruction in vocational agriculture which allowed clinical examination of concepts taught in the course.

Method. Sixteen vocational agriculture teachers in various taxonomies were purposely selected. Arrangements were then made to videotape them teaching in their own school using a predetermined teaching technique. Case studies which would guide students in the methods course in their analysis of the teachers were then designed. These materials were then infused in the undergraduate methods course.

Findings. Students in the course responded very well to the new format. The additional emphasis upon special needs students brought to light problems encountered in the regular classroom which had not previously been studied in the methods course.

OGUNRINDE, Samuel I. "Student Knowledge of Agricultural Occupations Upon Enrollment in Agricultural Programs in Ohio Joint Vocational Schools." Ph.D. Dissertation, 1981, The Ohio State University, Columbus.

Purpose. The objective of the study was to assess eleventh grade students' knowledge of agricultural occupations upon enrollment in specialized agricultural programs in Ohio joint vocational schools. Specifically, the study centered on the students' knowledge of the nature of agricultural occupations' job information, entry and advancement; and training and experience requirements.

Method. Four hundred and sixty-five students enrolled in various agricultural programs in ten randomly selected joint vocational schools were involved in the study. A thirty-six item test was administered to the students within their second week of enrollment by the program teachers during one related class period. Relationships between students' knowledge and selected student variables were investigated through Chi-square test and one-way analysis of variance. The possible test score was 36.

Findings. Scores ranged from three to thirty-four with a mean of 22.9 and a standard deviation of 6.1. Nine percent of the students secured eighty-one percent or more of the items correct, twenty-four percent secured seventy-five percent or more correct, and seventy-eight percent secured fifty

percent or more of the items correct. While sixty percent of the students scored higher than the mean, only nine percent scored higher than two standard deviations above the mean.

Student knowledge was significantly related to: (a) the program in which enrolled; (b) prior enrollment in freshman and sophomore agriculture; (c) prior membership in FFA and 4-H; (d) grades earned in freshman and sophomore classes as revealed by the students; (e) future educational plans; (f) supervised occupational programs which students carried; (g) length of related job experience; (h) preparation for future jobs in the program area in which currently enrolled.

There was no significant relationship between student knowledge and (a) previous class hours of instruction in agricultural occupations; (b) residence (farm, rural, or urban).

The amount of student knowledge explained by student background, demographic and career variables was fifty-five percent as measured by Eta squared.

OSBORNE, Edward W. "Requirements of Masters Degree Candidates in the Non-Thesis Option." Staff Study, 1981, The Ohio State University, Columbus.

Purpose. The purpose of the study was to examine the requirements in non-thesis masters degree programs in agricultural education in the United States. Program characteristics studied included type of degree, field in which the degree is offered, degree options (e.g., thesis or non-thesis), non-thesis research requirements, number of masters degrees awarded in 1979, and research and statistics course requirements.

Method. The population included all colleges and universities having an agricultural teacher education department. The 1979-80 Directory of Agricultural Teacher Educators served as the frame for the study. A questionnaire was sent to one purposefully selected faculty member in the agricultural education department at each of the universities. The survey instrument was designed to collect descriptive data about the masters degree programs in that department. Descriptive statistics were used to summarize the data from all reporting departments and according to AATEA regions.

Findings. (1) Fifty-two percent of the masters degree programs in agricultural education were classified as Master of Science degrees. (2) Seventy-two percent of the departments offered only one type of masters degree, while 24 percent offered two types. (3) Nearly two-thirds of the masters degrees were offered under the departmental framework of agricultural education. (4) Eighty percent of the departments offered both the thesis and non-thesis options. (5) Of the departments offering the non-thesis option, 59 percent imposed a special non-thesis research requirement that was independent of work completed in regular courses. (6) The non-thesis research requirement involved an average minimum of 3.63 semester hours. Nearly half of the departments required a minimum of three semester hours of non-thesis research. (7) The minimum number of hours required for the degree in the thesis option ranged from 20 to 38 semester hours. Eighty percent of the departments indicated a minimum requirement of 30 semester hours. (8) The minimum number of hours

required in the non-thesis option ranged from 30 to 40 semester hours. About half of the departments indicated a minimum requirement of 30 semester hours. (9) Of the departments offering both the thesis and non-thesis options, 53 percent required more hours for the non-thesis degree. The average number of additional semester hours was 4.3. (10) The average number of masters degrees awarded per department in 1979 was 10.7 with a range of 60 and a standard deviation of 10.93. The Southern and Central AATEA regions accounted for nearly 80 percent of the total number of degrees awarded. (11) Over two-thirds of the departments required course work in research or statistics in their masters degree programs. An average of 3.66 semester hours was required.

PONCE, Eliseo R. "Factors Influencing Agricultural Knowledge Adoption Level, Average Rice Yield, Participation Level, and Perception Level of Small-Scale Rice Farmers." Ph. D. Dissertation, 1981, The Ohio State University, Columbus.

Purpose. This study examined the relationships between the sets of selected demographic and situational variables and the set of four outcome measures as a result of participating in the rural development program of Samahang Nayon by small-scale rice farmers in Leyte, Philippines. The predictor variables consisted of three categorical and twenty-two numeric variables. The criterion variables were agricultural knowledge adoption level in rice production, average rice yield in cavans per hectare, participation level in the activities of the Samahang Nayon organization, and perception level about the future of the Samahang Nayon Organization.

Method. Through multi-stage sampling procedure, a random sample of 100 small-scale rice farmers who were members of the Samahang Nayon organization was drawn from each of the eastern and western parts of Leyte, Philippines. An interview schedule was developed and used to collect data from the respondents. Hypotheses of the study were tested by means of chi square tests, multivariate analysis of variance (MANOVA), and canonical variate analysis.

Findings. The chi square test indicated a significant difference ($p \leq .005$) between the two groups of respondents in terms of land ownership and credit source. The MANOVA showed that eastern and western respondents were significantly different ($p = .0001$) from each other. Follow-up multiple comparison procedure showed that this difference was attributed to nine numeric predictor variables and two criterion variables.

A three-factor multivariate analysis of variance showed a significant main effect of geographic location and significant two-way interaction effects of (1) geographic location and land ownership and (2) land ownership and credit source on the set of four criterion variables. Significant effects were further investigated by means of a step-down three-way univariate analysis of variance. Geographic location significantly affected agricultural knowledge adoption level, average rice yield, and participation level of small-scale rice farmers. Geographic location had disordinal interaction with credit source that significantly affected perception level. Land ownership and credit source had two-way disordinal interaction effects on all criterion variables except agricultural knowledge adoption level.

RIGSBY, Cindy L. "Perceptions of 4-H Club Advisors Toward Handicapped Individuals." Master of Science Thesis, 1981, The Ohio State University, Columbus.

Purpose. One objective of this study was to measure the attitude of current 4-H advisors (in Ohio) toward handicapped individuals. This attitude measure was then compared with six independent variables to determine what, if any, degree of association occurred.

Findings. All of the responding advisors scored either in the medium or high category on the Attitude Toward Handicapped Individuals scale. The age, sex, if advisors had children of their own in 4-H, type of 4-H club, and training in working with handicapped persons showed no degree of association with attitude measure. Experience in working with the handicapped showed no degree of association with attitude scores, however the rating of that experience (from very unfavorable to very favorable) did show a low degree of association.

The creative development of activities in which 4-H advisors can have a successful cooperative experience with handicapped persons is needed. Such activities may aid in reducing attitudinal barriers toward handicapped individuals.

SMITH, Keith L. "Perceptions of Iowa Vocational Agriculture Instructors Toward In-Service Program Materials." Staff study, 1981, The Ohio State University, Columbus.

Purpose. Evaluation of in-service education programs for Iowa vocational agricultural instructors was the focus of a staff research project completed in 1980. The research was designed to obtain information from the Iowa agricultural instructors that would indicate to what extent those who received the in-service program had upgraded or modified their instructional programs.

Objectives of the research were to determine:(1) In what ways are teachers using the materials, activities and demonstrations received at in-service workshops? and (2) What value do teachers place on materials, activities and demonstrations received at in-service workshops?

Method. Data were collected from 100 Iowa secondary and post secondary agricultural instructors who attended the Spring and Summer 1979 in-service workshops. This information was collected through mailed surveys for both the in-service workshops. The data sample was 30 for the Spring in-service workshop and 70 for the Summer in-service workshop, from 36 and 106 respectively who attended the workshops.

Appropriate analyses were made on the data to determine means and frequencies. Once the data had been cleared of error, one-way analysis of variance ($\alpha = .05$) was run for comparative analysis.

Findings. Results of the study indicated that: (1) The majority of agricultural instructors who attend in-service workshops use materials received at in-service workshops, (2) The majority of the materials received at in-service

workshops are directly utilized by respondents, and (3) The majority of materials given to respondents at in-service workshops are used by these respondents as resources or in programming (implementing and planning) in their agricultural programs.

SNYDER, Karen S. "Knowledge of Expanded Sex Roles and Attitudes Toward Self-Concept Development as Related to Nontraditional 4-H Project Selection." Master of Science Thesis, 1981, The Ohio State University, Columbus.

Purpose. In the Ohio 4-H projects, boys and girls are underrepresented in most nontraditional project areas. For purposes of this study, a nontraditional project was defined as being a project that once attracted participants of one sex, but is now enrolling both males and females. Because of the expansion of work and family roles and the desire to pursue personal interests, 4-H members could benefit from increased enrollment in nontraditional projects. This study attempted to determine significant factors useful in explaining why project selection is still traditional in nature. The purpose of this study was to determine significant factors which may influence 4-H members to select nontraditional 4-H projects.

Method. A total of 633 4-H members who attended the 1981 Ohio 4-H Club Congress and Subject Matter Conference participated in the study. Principle variables examined were the development of self-concept and knowledge of expanded sex roles in today's society.

Findings. The findings of this study tend to substantiate the general view that non-traditional project selection will be influenced by one's self-concept. When positive attitudes toward self, reduction of sex-bias, and more positive attitudes toward the parent(s) as a significant other are obtained, then it is expected that 4-H members will make a project selection which is associated with their personal interests. Contributions of this study can be summarized as follows. First, 4-H members who participated in the study are aware of the expanded sex roles. Second, the 4-H members have positive self-concepts. The results of this study can be of value to 4-H Extension agents, 4-H advisors, and parents of 4-H members, as they carry out their important roles of guiding and leading 4-H youth through a critical period of human development.

STARLING, John T. "Farm Business Analysis Report of Programs Conducted by Teachers of Vocational Agriculture." Staff Study, 1981, The Ohio State University, Columbus.

Purpose. The purpose of this study was to provide farm business analysis teachers as well as teachers of agricultural production courses with some averages; relative to certain efficiency factors, which they can use in teaching classes in agricultural production to make them more realistic.

Method. Ohio teachers who were conducting Farm Business Planning and Analysis programs submitted 424 farm business summaries for computer analysis. Averages of several selected measures of performance from the farm business analysis were used to secure the data for this study.

Findings. Some of the major findings of this study were: (1) The average capital investment per farm was $334,130, an increase of $10,792 over the previous year. The major share of the increase was accounted for by increased investment in machinery and equipment. There was a 4.2 percent decrease in investment in land per farm. (2) Gross income per farm increased $22,090 or 18.5 percent over 1979 and net farm income increased $2,529 or 8.3 percent. (3) In general, the dairy enterprise was the most profitable in 1980 due largely to adequate milk prices. (4) An analysis of the date shows that 1980 was not a profitable year for beef and swine farmers. Low prices coupled with increased operating costs were the contributing factors. (5) Crop farmers realized some profit, however, increased costs of fertilizer and fuel continue to take their toll on profit margins. (6) Narrowing profit margins, escalating interest rates, fluctuating weather patterns, and increasingly tight money have made the need for more accurate data and analysis more critical than ever before for the proper financial management of individual farm operations.

ULI, Jegak A. "The Ohio County Extension Program Planning Process: Perceptions of the County Extension Agent Chairman." Master of Science Thesis, 1981, The Ohio State University, Columbus.

Purpose. The objectives of this study are to describe (a) To what extent the county program planning procedures follow the recommended practices, (b) to what extent the advisory committee and others are involved in the planning process, and (c) to explore some of the factors that are related to the ability of the committee members to help perform programming skills.

Findings. The following conclusions are based on the findings of the study: The recommended practices are followed by the majority of the county chairmen to some extent. The majority of the committee and local citizens are not fully involved in all aspects of program planning. The ability of the committee members to help perform programming skills was found to be related to (a) their level of experience in Extension activities, (b) their knowledge of the purpose, goals, and objectives of the Extension service, (c) the present of the group process skill components of the planning group, (d) the extent to which the committee members and others are involved in planning Extension program, and (e) the extent to which the recommended practices are being followed.

WATKINS, Larae A. "Perceptions of Vocational Horticulture Students, Parents, Horticulture Industry Employers and School Administrators of the Value of Extended Service Contracts." Master of Science Thesis, 1981, The Ohio State University, Columbus.

Purpose. The purpose of this study was to describe vocational horticulture students, parents, horticulture industry employers and school administrators' perceptions of the value of the extended service contract/summer program in high school vocational horticulture.

Method. Twenty of the 66 Ohio vocational horticulture programs were randomly selected to participate in this study. An instrument was designed by the researcher for each of the groups in the study. Student and administrator instruments were personally delivered, and parent and employer instruments were distributed through the mail. The responses were quantified and statistically analyzed.

Findings. The data collected through the use of the specially designed surveys revealed that all four groups perceived the summer program as an important part of the vocational horticulture program; however, the specific benefits to students were viewed differently. Students and parents saw moral support and encouragement as the most important benefit, employers felt that help with job related problems was the most important and administrators saw one-to-one instruction as the most important benefit. All groups considered the FFA summer program one of the least important benefits. Students, parents and employers all believed that summer experiences contribute to the occupational success of the student, and that the knowledge gained during the summer was impossible to obtain during the school year.

WELCH, Antoinette W. "Readability of Vocational Horticulture Instructional Materials." Ph. D. Dissertation, 1981, The Ohio State University, Columbus.

Purpose. The major purpose of the study was to gather base data concerning the readability of instructional materials used in Ohio vocational horticulture programs. Other purposes of the study were to describe the relationship between readability scores of materials and the following variables: frequency of use of materials, experience of teachers selecting the materials, teacher estimates of readability of the materials, and performance on standardized achievement tests of students using the materials.

Method. One horticulture teacher at each of the 40 schools participating in the 1981 Ohio Horticulture Achievement Testing program was randomly selected and sent a questionnaire developed by the investigator. Eighty-eight percent of the teachers contacted responded to the questionnaire. Responses were tabulated, and readability of materials listed was predicted using the Dale-Chall Readability Formula. Correlation coefficients were used to analyze relationships between readability scores of instructional materials and the other variables.

Findings. The findings revealed that teachers were using a wide variety of printed materials in the classroom. A total of 115 different items was listed by the 35 respondents. The majority of materials was written at a level which matched student grade level. However, scores on statewide tests indicated that vocational horticulture students were below average in ability. These scores led to the assumption that students were also reading at a level below grade level placements. It was concluded that the majority of materials was too difficult in terms of reading difficulty for the majority of students using them.

There was no statistically significant relationship between the readability of materials and the frequency with which those materials were listed by teachers. Similarly, no significant relationship was found between readability of materials listed and teacher estimates of this readability, or readability of materials and student achievement on standardized tests.

Analysis of the 23 materials listed most frequently by teachers indicated that technical terms and other difficult words constituted from 16 to 29 percent of the total sample passages. A list of difficult horticultural terms was made to facilitate instruction and further study in the area of technical vocabulary.

OKLAHOMA

Brashears, Kendall Bueford. "Expectations of Vocational Agriculture by Citizens of the Fairview Community." Master of Science Report, 1980, Oklahoma State University, Stillwater.

Purpose. To determine the attitudes of the respondents to a survey in the Fairview community regarding the vocational agriculture program with particular emphasis upon: (1) general agriculture and the high school curriculum; (2) classroom instruction; (3) supervised occupational experience program; (4) the role of the FFA; (5) agricultural mechanics; and (6) the Young Farmers program.

Method. Questionnaires were mailed to 50 citizens of the Fairview community. The respondents included all five school administrators, all five members of the board of education, 20 randomly selected businessmen, and 20 randomly selected FFA parents.

Findings. The major findings concerning programs for high school students and adults were: (1) vocational agriculture should provide opportunities that will give a student knowledge of and experience in the farming business and in occupations closely related to farming; (2) the subject areas of the classroom should parallel the agricultural industry of the local community and regular visits and field trips should be made to these facilities; (3) the supervised occupational experience program is a necessary part of the program that converts classroom instruction to practical experience, also production projects should be emphasized more and the students should be encouraged to exhibit their animals at fairs and shows; (4) all students are encouraged to become FFA members and become involved in some type of contests, public speaking, or chapter projects, also the chapter should publicize its activities more and review these activities with the school administrators; (5) the agricultural mechanics program is a vital part of the vocational agriculture program and should emphasize skills acquisition as well as metal work and project completion; and (6) the program should assist young men who have completed the vocational agriculture program in progressing in their agricultural careers, and a Young Farmers Chapter should be provided to accomplish this.

Clapp, Joe David. "A Study of Teacher Changes Among Vocational Agriculture Teachers Within the State of Oklahoma From July 1, 1975 to June 30, 1979." Master of Science Report, 1981, Oklahoma State University, Stillwater.

Purpose. The purpose of this study was to determine the movement of Vocational Agriculture teachers within supervisory districts, out of supervisory districts and out of the profession by supervisory districts.

Method. A list of teachers, for each of the four years studied, was acquired from the Oklahoma State Department of Vocational-Technical Education, Vocational Agriculture Division. These were checked for teacher changes each year. If a teacher's name did not appear on the list, it was assumed he had either left the profession or moved to another state. The study was limited to Vocational Agriculture teachers in Oklahoma who moved or left the profession between the years 1975 and 1979. The supervisory districts were then ranked from highest degree of movement to lowest degree of movement.

Findings. During the period of July 1, 1975 to June 30, 1979, a total of 96 Vocational Agriculture teachers changed schools in Oklahoma and 173 left the teaching profession or moved to another state. Teacher mobility by districts was discovered as follows: the Central District, as indicated by the analysis of data, had 26.4 percent of the teachers that moved or left the profession during the four-year period; other districts in order of percent of teacher moving or leaving the profession included the Southwest District (24.4 percent), Northwest District (21.2 percent), Northeast District (17.5 percent), and Southeast District (10.7 percent).

Dayrit, Ruben Serrano. "Competency Bases for an Agricultural Education Program for the College of Micronesia." Doctor of Education Dissertation, 1980, Oklahoma State University, Stillwater.

Purpose. This study attempted to identify certain professional competency needs of prospective Micronesian vocational agriculture teachers and agricultural extension agents for the purpose of developing a pre-service agricultural education curriculum designed to meet those competency needs. Another dimension of the study was to obtain information on administrative policies and practices common among agricultural education departments of different colleges and universities in the United States which might prove valuable in the administration of the planned agricultural educaiton program at the College of Micronesia.

Method. The data for the study were collected through the use of self-administred questionnaires. Responses on competency need statements were rated on the basis of pre-established criteria for determining the relative importance of each competency to the pre-service training needs of vocational agriculture teachers and extension agents. The competency mean responses were calculated, rated and ranked accordingly. The responses from the agricultural education administrators were used to establish consensus of opinions regarding the common policies and practices in agricultural education administration.

Findings. All the competencies listed on the questionnaires were considered as important to the pre-service training needs of Micronesian vocational agriculture teachers and extension agents. The teacher competencies which received high ratings were in the area of classroom teaching performance, instructional planning, evaluation, and professional improvement. The extension agent competencies which were ranked highly were in the area of public relations, field extension work, extension program planning, and program evaluation. The responses from the agricultural education administrators presented useful information relative to the staff and administration of a four-year, agricultural education program in higher education.

Finley, George Edward. "Wheat Producer's Awareness, Attitudes, and Practices Concerning Integrated Pest Management and Production Problems in a Four-County Area of Oklahoma." Doctor of Education Dissertation, 1981, Oklahoma State University, Stillwater.

Purpose. The primary purpose of this study was to determine a base-line awareness of the wheat producers who resided in a four-county area in north central Oklahoma of the newly initiated Oklahoma State University Integrated Pest Management (IPM) program in wheat and, also, to determine the specific major pest-related problems the wheat producers were confronted with in the producation of their wheat.

Findings. Most wheat producers: farm full-time, have produced wheat for more than 20 years, farm 800 acres of wheat or less, averaged 32 to 47 bushels of wheat per acre, have an estimated gross farm income of $50,000 or more (of which an estimated 60 percent or more came from the production of wheat), have had some college training, reside on the farm, produced wheat to sell the grain commercially, seldom are not familiar with their pest related problems, consult extension service personnel concerning pest related problems, considered climate to be the major problem affecting wheat production, considered "Cheat" to be the major weed problem, considered "Soil Borne Mosaic" to be the major disease problem, considered "Greenbugs" to be the major insect problem, had not heard of IPM, wanted additional information concerning IPM, preferred to be trained to check or scout their own wheat for pest related problems, considered the "OSU Yield Test Results" as the major factor influencing their selection of wheat seed, and considered themselves as the person who had the major influence pertaining to their farm management decisions.

Forsythe, Steven William. "An Assessment of Agricultural Mechanics Safety Instruction Conducted at Agricultural Teacher Education Programs Across the United States." Doctor of Eudcation Dissertation, 1981, Oklahoma State University, Stillwater.

Purpose. The primary purpose of this study was to assess selected areas of safety instruction in agricultural mechanics conducted at agricultural teacher education programs.

Methods. The study population consisted of 103 teacher trainers in agricultural mechanics. Of the 103 agricultural mechanics teacher trainers from across the United States. 92.23% responded. Mailed questionnaires were utilized in which teacher trainers were asked to respond to questions concerning demographic data and questions related to topic importance, amount of training, time spent teaching. where trained, and level of safety preparation of agricultural education students.

Findings. Teacher trainers in agricultural mechanics perceived organizing the shop and keeping house to be of "very much" importance in the area of shop environment. All aspects of safety education and enforcement - accident prevention were perceived to be of "much" or "very much" importance. Teacher trainers spent 1-5 hours of class and shop time on most aspects of safety. Teacher educators had a least "some" training in every area of safety and secured most of their safety training through individual study or preparation. Most teacher trainers perceived their students to be "adequately prepared" in safety and over one-half of the teacher educators had additional duties besides teaching. Some teacher eudcation programs from the eastern FFA region have no agricultural mechanics facilities.

Goodson, Verlin Ray. "Occupational Decisions Made by Yukon State Farmers From 1938 Through 1980 and Selected Information Related to Those Decisions." Master of Science Report, 1980, Oklahoma State University, Stillwater.

Purpose. The purpose of this study was to determine the occupational decisions and what influenced State Farmer Degree winners to make these dicisions. It was also to determine if the State Farmer Degree was recommended to other students of vo-ag, and ascertain if the State Farmer Degree was worth the effort.

Method. Information for this study was collected by the use of a questionnaire developed by the author.

Findings. Based on the date collected it was found that seventy-nine percent of the students remained in the Yukon area with sixty-four percent of former State Farmer Degree holders still in farming, or in some type of agriculture related occupation. Justification for earning the State Farmer Degree was also provided when one hundred percent of the respondents felt the degree was worth the effort, and also would recommend obtaining the degree even though interest was not in farming. It was further concluded that approximately two-thirds of the State Farmer Degree holders continued some post secondary education, and felt that more education was an important factor for any type of advancement.

Graham, Terry Glenn. "Impact of Selected Influencors on Decisions to Attend Oklahoma State University and Major in Agriculture." Master of Science Thesis, 1981, Oklahoma State University, Stillwater.

Purpose. The purpose of this study was to determine who or what influenced freshmen to attend Oklahoma State University and major in Agriculture. The scope of the study dealt only with those students enrolled in Agriculture Orientation 1011 at Oklahoma State University during the fall semester of 1980.

Method. The study was divided into four main areas of influence: people, factors, activities, and sources of information. Each student marked the items listed according to its degree of influence and rated the item as either the first, second, or third most influential.

Findings. Responses by the freshmen enrolled in Agriculture 1011 during the fall semester of 1980 indicated that 42.45% had made the decision to attend a university or college before their first year in high school. Twenty-one and one half percent had made the decision as early as the 5th grade while 70.87% did not decide on a specific major in agriculture until their senior year in high school. The available degree program and/or curriculum offered along with course offerings were shown to have the greatest overall impact on freshmen's decisions to enroll in a major of agriculture. Parents, Vo-Ag teachers, and OSU students were also found to exert influence. High school principals, high school counselors, high school teachers, county extension agents, distance, student services, jobs, student body characteristics, and athletic scholarship were all among those items not having an impact on students. Having agriculture career information available and personal visits to campus through the FFA, sports activities, and career days is a major factor in attracting students to major in agriculture at OSU.

Gray, Reuben Carlton. "The Desirability of and Implications for a Co-Curricular Agricultural Student Organization in Jamaica." Master of Science Thesis, 1981, Oklahoma State University, Stillwater.

Purpose. A concern about the high average age of 52 years of the Jamaican farmer with an inability of the Jamaican system to motivate and attract young people to farming, plus a lack of organization in agricultural programs that serve youth, prompted a study on the Desirability of and Implications for a Co-Curricular Agricultural Student Organization in Jamaica.

Method. Thirty secondary schools' principals, thirty agriculture teachers and ninety students of agriculture; all representing thirty schools, were surveyed to gain their perceptions on: the desirability of an agricultural student organization; leadership co-operation, citizenship, a co-curricular organization, organizational structrue and function, finance and related philosophy; all of which represented some aspects of vocational student organizations in the United States of America, and other developed countries. A summated rating scale was used and mean responses from the categories of strongly agree, agree, undecided, disagree and strongly disagree, determined.

Findings. Analysis indicated that all groups of schools personnel and students surveyed, at least agreed that a co-curricular agricultural student organization was desirable and that it should promote leadership, cooperation and citizenship in an endavor to influence a positive attitude towards agriculture.

Lacruz, Pedro Filipe. "Possible Adaptations in the Functions of Secondary Agricultural Education to Enhance Rural Community Development in Venezuela." Master of Science Thesis, 1981, Oklahoma State University, Stillwater.

Purpose. The major purpose of the study was to determine the appropriate role of secondary agricultural education in assisting to bring about development which may result in more abundant life for rural inhabitants. A collateral or substantive integral purpose was to assess (1) present status, and (2) future needs for rural development in Venezuela.

Method. A thorough study was made of agricultural education and rural community development in both Venezuela and the United States. Questionnaires were submitted to 78 administrators and 105 teachers in vocational agriculture schools, and to 150 farmers. An overall return of 83.18 percent was secured from the respondents.

Findings. A major finding, substantiated through literature review, was that rural and community development must consider the interdependence of all developmental sectors these sectors to include not only agriculture and industry, but also transportation, trade, credit, health, education, culture, sport and leisure activities. Findings of the survey include: (1) farmers desire a functioning program of vocational agriculture which incorporates many of the postulates of Integrated Rural and Agricultural Development, (2) to a lesser extent teachers and administrators were favorably inclined toward integrating community development into the vocational agriculture program, (3) one was the fact that most educators are not living within the community and consequently are very limited in their participaton. Recommendations were made regarding (1) curriculum for vocational agricultural schools and pedagogical preparatory institutions, (2) sponsorship of a student organization, and (3) concentration on an integrative approach to rural community development in vocational agricultural schools.

Metcalf, Wayne Ken. "Comparison of Current and Projected Administrative Personnel Preparation, Needs and Practices for Adult Vocational Education Programs Within Oklahoma's Area Vocational-Technical School System." Master of Science Report, 1980, Oklahoma State University, Stillwater.

Purpose. The purposes of this study were to determine the competencies necessary for performing the duties currently being performed by vocational adult education administrators in Oklahoma's area vocational-technical schools.

The three major areas of consideration were (1) percentage of time utilized in performing specific tasks, (2) the best method(s) for acquiring competencies required to perform each job task, and (3) the percentage of time devoted to performing each job task and the degree of time devoted overall to the administration of the part-time adult educational program in each school by each administrator.

Findings. The responses were divided by population base. Responses were tabulated according to frequency and percentage of response by each population base and accumulated also by statewide totals. Responses were then grouped and ranked prior to determining the degree of variance and correlation between the various population bases. Little variance in responses was evidenced between the various population bases. A strong correlation of time utilization for task completion and the degree of importance of various tasks was evidenced. No definitive conclusions could be drawn in regard to the best instructional method for obtaining the competencies necessary for completing each job task. Respondents indicated that administrative responsibilities were divided among various levels of vocational education and operational duties. In fact, only four of the twenty-five respondents devote one hundred percent of their time to administering part-time adult vocational-technical educational programs. The high degree of agreement evidenced in the type of tasks performed, the amount of time devoted to completing these tasks and the rankings that resulted were deemed valid and satisfactory.

Ndifon, Henry Mbeh. "Perceptions of Cocoa Farmers and Extension Agents in Nigeria Concerning Production Practices with Implications for Mutual Working Relationships." Master of Science Thesis, 1981, Oklahoma State Univeristy, Stillwater.

Purpose. The purpose of this study was to determine perceptions of cocoa farmers and agricultural extension personnel concerning production practices with implications for mutual working relationships.

Method. Responses were obtained from both farmers and extension staff in Ikom division by the survey method. Seven villages were selected from a total of ten. Fifteen farmers from each village were chosen as being a representative sample. The 105 total participants were selected as being representative of the farmers in Ikom division. A survey was also used to determine the perceptions of the extension staff (10) in each village. Eighty-three farmers (79 percent) participated while 9 (90 percent) of the extension staff participated in the survey.

Findings. It was found that 42 percent of the farmers were over 45 years of age. The major problem area of cocoa farming as reported by the farmers was in: (1) black pod control, (2) cocoa plant protection, and (3) marketing information. Most of the farmers indicated that their neighbors were the number one source of information concerning production practices. It was also found that most of the agricultural extension staff met periodically with their respective cooperating cocoa farmers. The major area of future training needed by the farmers as reported by the extension staff was in the area of: (1) cocoa plant protection, (2) marketing information, (3) chemical weed control, and (4) use of new equipment. The agricultural extension staff indicated that the farmers "present problem area was almost the same as in the future." They ranked cocoa plant protection, marketing information, and chemical weed control as first, second and thrid respectively - as future problem area for farmers. It was recommended that the agricultural extension staff and the cocoa farmers should organize regular meetings to determine how they might slow the exodus of the young people from the farm. Local "farm leaders" and the extension staff should

organize "adult farmer" meetings to demonstrate methods of assisting farmers solve their major problems.

Randle, Thomas Earl. "Perceptions of Oklahoma Residents Toward the Instructional Function of the Oklahoma State University Division of Agriculture." Doctor of Education Dissertation, 1981, Oklahoma State University, Stillwater.

Purpose. The primary purpose of this study was to determine a baseline perceptional awareness of Oklahoma residents of the instructional phase in the Division of Agriculture at Oklahoma State University and to compare the perceived awareness of groups comprising different sexes, income, job classifications, ages, racial/ethnic backgrounds, and education.

Methods. A telephone survey was used to gather data from 2,401 residents of Oklahoma, having access to a telephone, and having their number listed in a published telephone directory in Oklahoma. Sixteen hundred and sixty-two Oklahoma residents (69.22 percent) responded to the survey. The instrument was designed to determine the level of awareness of the respondents toward OSU Ag Instruction and to obtain certian demographic data from each respondent.

Findings. Responses by Oklahoma residents in this study indicated that over 50.0 percent had been on the Oklahoma State University campus for an agriculture event. Seven hundred and eighty-five respondents were able to name at least one of the 13 subject areas offered in the Division of Agriculture at Oklahoma State University. Approximately 54.0 percent of the respondents rated instruction at the University in the Divisions of Agriculture "high". The residents with higher levels of awareness were usually between 18 and 24 years of age, male, and white.

Walden, Sam Gene. "Expectations of the Vocational Agriculture Program in the Indianola Community." Master of Science Report, 1981, Oklahoma State Univerisyt, Stillwater.

Purpose. To determine the attitudes of the respondents retarding the Vocational Agriculture Program with emphasis placed upon (1) Supervised Occupational Experience Program, (2) Classroom Aspects, (3) Agriculture Mechanics, (4) Future Farmers of America, and (5) The Vocational Agriculture Teacher's Personal Life.

Method. Questionnaires were mailed to forty-five citizens of the Indianola Community.

Findings. The major findings concerning this study were: (1) the Supervised Experience Program is an important part of the Vocational Agriculture Program. Emphasis should be put on record keeping, supervision of projects, and students encouraged to raise better livestock. (2) The Class area should maintain a balance between classroom teahcing and practical experience. (3) Agriculture Mechanics plays an important role in the Vocational program but wasn't considered more important than other phases of the Vocational Agriculture Program. (4) The Future Farmers of America is a vital part of the total program. Students should be encouraged to join and strive for the highest degrees they can obtain. (5) The Vocational Agriculture teacher is meeting the needs of the community. He should spend more time with students than farmers and needs to budget his time

to gain full benefit from it. The Vocational Agriculture Program is expected to provide students with training and skills in the field of agriculture and ag-related areas. This should give the students a better opportunity to further his or her education and/or gain entry into the world of work.

Williams, Randall Harold. "Teacher/Administrator Utilization of Recommended Guidelines for Summer Vocational Agriculture Programs in Area I of Texas." Doctor of Education Dissertation, 1981, Oklahoma State University, Stillwater.

Purpose. The purpose of this study was to determine if the "Recommended Guidelines for Summer Vocational Agriculture Programs in Texas" were being utilized by the vocational agriculture teachers of Area I of the state of Texas and their administrators.

Method. One hundred and twenty-four vocational agriculture teachers of Area I participated in the study. A questionnaire was administered at the final area meeting of the summer vocational agriculture teachers conference on August 8, 1980, in Fort Worth, Texas, in order to gather needed data for the research effort. A second questionnaire was mailed to the administrators of those vo-ag teachers to measure their opinions concerning the ackowledgment and utilization of these guidelines. Eighty administrators, or 91 percent of the 88 administrators that were mailed questionnaires, responded. Descriptive statistics, logical evaluation, numbers, percentages, and means were employed to analyze the data gatehred from the population of the two test groups.

Findings. The vocational agriculture teachers in Area I of Texas are utilizing the "Recommended Guidelines for Summer Vocational Agriculture Programs in Texas" when making out and planning their summer programs. However, only 25 percent had utilized their administrators' assistance when developing the 1980 summer program of work. The teachers agreed that all aspects of the recommended guidelines were of importance to the total summer program. The highest percentages of actual teacher utilization were discovered in the area of supervised occupational experience programs, visitation of prospective students and area agriculturalists, conducting summer FFA activities, and keeping current with required reports. Adult and young farmer education, improvement of school facilities, and professional improvement through attendance of college credit courses were areas where percentages came at the lowest end of teacher utilization. It was established that administrators are aware of the existence of the recommended guidelines but do not normally assist the vo-ag teachers in making out their summer program of work. Ninety-six percent of the teachers felt that they kept their administrators well informed of their planned summer activities and could be located at the vo-ag facility each day. In contrast, 85 percent of the administrators reported knowledge of their teachers' planned activities and 45 percent contended that they could not easily locate their vo-age teachers on a daily basis. Both the vo-ag teachers and administrators agreed that the teachers did not participate in any outside jobs or activities that would detract from operating a standard summer program. The summer program of vocational agriculture in Area I of Texas was regarded as being a highly important part of the total program of vocational agriculture and should be maintained on a 12-month contract basis in Texas.

Yorama, Moses T. "The Feasibility of Dairying in the Niger Delta Area of Nigeria." Master of Science Report, 1981, Oklahoma State University, Stillwater.

Purpose. Prompted by an apparent lack of incentive on the part of federal and state governments involved in agricultural development in this densely populated area of Nigeria, the author attempted to explore all constraints that limit dairying in the humid tropics as a basis for recommending such procedures necessary for a viable dairy industry in the area.

Method. This study was confined to an extensive review of related literature, and a personal interview with a senior lecturer and the University of Ife. The author also drew on this personal experience of seven years of working as a meat inspector in the Rivers State Ministry of Agriculture.

Findings. It was found that the absence of dairying in this area is the result of varying degrees of influence from climatic conditions, moisture control and soil stability, land resources, predators and pests, technological adaptation, economic infrastructure, installation of dairy processing plants, livestock importation, nutrition, and the experts we consult on these subjects. This led to the conclusion that efforts must be intensified to bring research results from the college and universities to the farmers in rural areas by providing a better agricultural extension service, if government efforts to improve agricultural production have to succeed. Therefor, a greater involvement and participation in dairying by governments, rural cooperatives, institutions of higher learning, the oil companies, and businesses that operate in the Niger Delta was recommended, including the investment of revenue from oil in the development of resources needed for dairy production in the area.

PENNSYLVANIA

ALMOND, Wayne N. "An Assessment of the Need for the Development of Materials and Methods for Counseling Horticulture Students Entering the Delaware County Area Vocational Technical Schools." Master of Education Paper, 1980, The Pennsylvania State University, University Park.

Purpose. This study assesses the completeness and accuracy of the counseling offered to prospective horticulture students in the Delaware County Vo-Tech Schools. The purpose is to identify the types of materials and methods currently being employed by sending school guidance counselors. Evaluation of these two areas by both students and counselors suggests several ways to improve the counseling techniques being used at present.

Method. All incoming students in both horticulture programs in the county for school year 1979-1980 were involved in the study. The sending school guidance counselors in the county also evaluated current practices and suggested improvements. A pretest/posttest using the instructors' course introduction as the treatment was employed. Scaled questionnaires for both students and counselors concerning the accuracy and completeness of counseling in the areas of vo-tech school procedures, course content, and horticulture careers were used. Comments and recommendations for change were solicited from both students and counselors.

Findings. Results indicate that communications between the vo-tech programs, horticulture in particular, and the sending schools must be improved. Also, expanded and improved materials need to reach prospective sending school students through the guidance counselors. New methods of disseminating those materials are also recommended, based on counselor suggestions. These include the use of computers, "traveling vo-tech shows," and a central office of the vo-tech schools to gather and dissiminate appropriate course and career information to counselors.

AUGHINBAUGH, Margaret Ann. "Development and Evaluation of a Slide Presentation on the Gypsy Moth's Life Cycle with Emphasis Toward County Extension Agents' Use in Developing an Awareness Program for Their Clientele." Master of Education Paper, 1980, The Pennsylvania State University, University Park.

Purpose. The major purpose of this study was to develop and evaluate a slide presentation on the gypsy moth's life cycle and to outline its potential impact on an area expecting infestations. This study will provide educational materials which Cooperative Extension agents can use to prepare a gypsy moth awareness program which best fits their local situations. A secondary emphasis of this study was to determine whether the knowledge gained through these visual aids and script helped to alleviate some of the concern associated with the gypsy moth.

Method. The study involved 30 property owners from Clearfield County, Pennsylvania, who participated in a gypsy moth awareness program on October 23, 1980, at the Clearfield Area Middle School. A one-group pretest/posttest design was used in this study.

The treatment variable was an educational package consisting of an introduction, an exhibit of live gypsy moth specimens and a slide presentation on the gypsy moth's life cycle and potential impact on the area.

The dependent variable (observation) was performance on a pretest and posttest which measured both knowledge and attitude on the gypsy moth. An evaluation sheet pertaining to the presentation and developed visual aids was also filled out by each individual.

A correlated t was used to determine whether a significant difference existed between the pretest and posttest scores. The basic descriptive statistics of mean, standard deviation and frequency were used to determine the effectiveness of the presentation and the developed visual aids.

Findings. One hypothesis was formulated and tested. The significant findings of the study are as follows:

1. There was a significant difference between the pretest and posttest scores of those property owners who participated in the educational program.

In addition, the following conclusions were established through this study: (1) the information presented on the gypsy moth was informative, factual, logical, appropriate and useful; (2) the visuals used in the presentation were effective, readable and clear; (3) the overall presentation was organized, clear and understandable; and (4) the knowledge gained about the gypsy moth's life cycle and potential impact on the area helped to alleviate some of the concern associated with the gypsy moth.

BALLIET, Kenneth L. "Forestry Competencies for Entry Level Vocational Forestry Teachers in Pennsylvania." Master of Education Paper, 1981, The Pennsylvania State University, University Park.

Purpose. The purpose of this study was to identify forestry competencies needed by beginning vocational agriculture teachers in Pennsylvania. It also rated the level of competence incumbent vocational agriculture teachers possessed when they started teaching. The sample for the study consisted of vocational agriculture teachers teaching forestry curriculum identified by the Pennsylvania Department of Education and selected vocational agriculture teachers from schools in areas with intensive forest industries.

Method. The initial survey instrument listed 166 forestry competencies compiled by the author. The competencies were selected from seven major instructional areas: forest management/silviculture, forest products/timber harvesting, forest measurement, forest protection, forest science/ecology, forest recreation, and teaching forestry. The instrument was reviewed by a screening committee composed of vocational agriculture teachers and forest workers. As a result of the screening, the final survey listed 103 competencies, along with demographic questions needed to obtain important information about the respondents.

The surveys were mailed to the sample along with a self-addressed stamped envelope. Those not responding after a two-week period were sent a second survey.

Findings. Competencies considered essential for beginning teachers of vocational agriculture were those rated 3.00 or higher by the total sample. Seventy-six of the 103 competencies were perceived as being essential for beginning teachers.

Analysis of variance was used to analyze the data. Where significant differences in the means were indicated, the Duncan's Multiple Range Test was used to determine which group or groups were significantly different. There were few significant differences among vocational agriculture teachers as to the perceived level of competence: (1) needed by beginning teachers, and (2) possessed by respondents when they started teaching.

HARPER, Joe G. "Evaluation of a Series of Task Sheets in Farm Tractor Preventive Maintenance." Master of Education Paper, 1980, The Pennsylvania State University, University Park.

Purpose. The major purpose of this study was to develop and evaluate a series of task sheets in farm tractor preventive maintenance. An initial survey was conducted to determine the extent of farm tractor preventive maintenance in vocational agriculture in Pennsylvania. From the data collected a series of task sheets was developed and a panel of experts reviewed the content and organization of the task sheets.

Method. Vocational agriculture teachers were randomly selected to use the task sheets in their high school classes. The teachers evaluated the task sheets using a 16-item Likert-type scale. Data collected were analyzed by calculating the percentage of responses item by item.

Findings. Findings from the returned survey instruments indicated an overall positive impression of the task sheets. The teachers found them to be an effective means of instruction for teaching farm tractor preventive maintenance covering most of the skills needed by high school students.

HERDRICH, Harold R. "Distinguishing Characteristics Between Returnees and Non-Returnees to Agriculture Programs in a Community College." Doctor of Education Thesis, 1980, The Pennsylvania State University, University Park.

Purpose. This study assessed the characteristics distinguishing students who failed to return for a second year at San Joaquin Delta College in Stockton, California, from those students who returned.

Method. Students involved in the study were those who entered the day-time programs of agriculture and ornamental horticulture and who were considered full-time freshmen students during the fall semesters of 1975, 1976, and 1977. Data collection was accomplished by means of a questionnaire sent to 206 students one year after their initial enrollment. A total of 155 (75 percent of the total) useable survey forms were returned. Fifty-five were from non-returnees, 100 were from those who returned for a second year.

Characteristics investigated included high school background, family and personal background, college performance during the year of initial enrollment, counseling received in both high school and college, and job objective formulation and change. The students were separated into two groups based on whether or not they had returned to college the second year. Statistical analysis was accomplished by means of Chi Square and t-test to test the hypotheses formulated.

Findings. Findings indicated that students who failed to return to San Joaquin Delta College for a second year were not in many ways uniquely different from the students who did return. The non-returnees were, however, more likely to be married, had generally completed fewer units of college credit during their first year of study, and where employed were usually working considerably more hours per week. They also tended to rate themselves higher in the area of having a firm job objective before entering college than did the returnees. Non-returnees also had a slightly higher average age at date of enrollment than did returnees.

HOWE, James D. "Salaries and Working Conditions of Pennsylvania Vocational Agriculture Teachers, 1979-1980." Master of Education Paper, 1980, The Pennsylvania State University, University Park.

Purpose. Numerous studies have been conducted to determine why the teacher shortage in vocational agriculture exists. Many of these studies have determined that salaries and working conditions contribute to the high teacher turnover in vocational agriculture. The principal purpose of this study was to determine the actual salaries and working conditions of Pennsylvania vocational agriculture teachers who were actively teaching during the 1979-80 school year. Four specific objectives were identified as being pertinent to the study.

Method. To determine the salaries and working conditions of Pennsylvania vocational agriculture teachers, a questionnaire was distributed at all regional Pennsylvania Vocational Agriculture Teachers' Association (PVATA) conferences held during the spring of 1980. A follow-up survey was conducted after all regional conferences had been held. This follow-up involved the mailing of questionnaires to all teachers not present at PVATA conferences. Of the 385 teachers surveyed, 191 questionnaires were returned resulting in a 49.6 percent return.

Findings. The principal findings were: (1) the largest percentage of Pennsylvania vocational agriculture teachers, 67.31 percent, held a Bachelor's degree; (2) the mean number of years of teaching experience for Pennsylvania vocational agriculture teachers was 12.27 years; (3) the typical Pennsylvania vocational agriculture teacher has a 216-day contract; (4) the greatest percentage of Pennsylvania vocational agriculture teachers taught agriculture production, 70.80 percent, and agriculture mechanics, 53.42 percent; (5) most Pennsylvania vocational agriculture teachers, 45.91 percent, taught in a senior high school; (6) Pennsylvania vocational agriculture teachers reported the most common class size as 15 to 20 students; (7) on a state-wide basis, 51.88 percent of all teachers earned in excess of $17,000 per year; (8) of those teachers with three or fewer years of teaching experience, the salaries ranged from $9,000 to $15,000. Those teachers who had taught between four and seven years reported a salary range of $11,001 to $20,000. All teachers with eight or more years of teaching experience earned more than $15,000; (9) the mean number of paid summer vacation days was found to be 4.6 days; and (10) on a state-wide basis, 81.01 percent of all Pennsylvania vocational agriculture teachers received some reimbursement for graduate tuition.

MARTSOLF, Edward L. "An Analysis of the Animal Health (Paravetical) Competencies Needed by Pennsylvania Vocational Agriculture Teachers." Master of Education Paper, 1980, The Pennsylvania State University, University Park.

Purpose. The purpose of this study was to analyze the animal health (paravetical) competencies that are needed by Pennsylvania vocational agriculture teachers. The analysis will provide pertinent data and information for the development of inservice education activities, as well as the enhancement of the animal science requirements of the undergraduate program in agricultural education.

Method. An extensive literature search was conducted to find information dealing with animal health (paravetical) competencies. A list of paravetical competencies was developed from this information. The list was presented to a jury of experts representing veterinarians, cooperative extension agents, and vocational agriculture teachers. They identified those competencies which they considered important for teaching animal science.

Findings. Vocational agriculture teachers need to perform several animal health (paravetical) competencies when teaching various instructional areas of animal science to high school students and adults, and they need the competencies to do so. This need is extremely important for vocational agriculture teachers who educate students through supervised occupational experience (SOE) projects. Adults in the young farmer programs need this expertise too, as they manage their full-time or part-time farming programs.

Animal health (paravetical) competencies are needed by Pennsylvania vocational agriculture teachers to teach animal science. The 90 selected competencies studied were considered to be essential. Pennsylvania vocational agriculture teachers expressed a definite need for more information and education on the 90 selected competencies. Two key results of the study indicate this need: (1) 75 percent of the total population of vocational agriculture teachers responded to the survey using a lengthy questionnaire; and (2) the need mean exceeded 2.5 on the Likert Attitude Scale analysis for all 90 competencies, and the need mean was 3.0 or more for 85 of these competencies.

McCOY, James S. "Evaluation of Commercial Feed Rations for Feeding Chukar Partridges in Confinement." Master of Science Thesis, 1980, The Pennsylvania State University, University Park.

Purpose. The major purpose of the study was to evaluate commercial turkey, broiler, and pullet rations fed chuckar partridges in confinement. A secondary purpose of the study was to identify new feeding information regarding protein levels that would be helpful for those interested in raising chuckar partridges.

Method. The study involved 84 randomly selected birds, divided into three treatment levels of four pens each with seven birds per pen. The treatment levels consisted of (1) a commercial turkey ration, (2) a commercial broiler ration, and (3) a commercial pullet ration. The birds were grown out for 18 weeks and the treatments were changed as the requirements of the birds changed to insure maximum growth. Group observations were taken every two weeks with individual observations being recorded every six weeks. At every observation bird weights, feed consumed, feather scores, and picking scores were recorded.

Analysis of variance (ANOVA) was used to determine if a significant difference existed between treatment levels regarding all observations. The Duncan's Multiple Range Test was used to identify where the significant differences occurred between treatment levels.

Findings. Four hypotheses were formulated and tested. The significant findings of the study are as follows: (1) chuckar partridges had greater feed efficiency if fed commercial broiler ration the first 12 weeks of life and a pullet developer thereafter; (2) chuckar partridges fed a commercial broiler ration for the first 12 weeks of life and a pullet developer thereafter cost less to produce per unit of gain; and (3) feather condition is affected adversely by feeding a commercial pullet ration during the first six weeks of life. After the first six weeks, feather condition was not adversely affected by the type of ration fed.

PANDYA, Himanshu Shantilal. "Status of Gifted Students in Vocational Agriculture Classes in the United States." Doctor of Philosophy Thesis, 1981, The Pennsylvania State University, University Park.

Purpose. In recent years the enrollment of gifted students was thought to have been on the increase in vocational agriculture classes at the national level. There was a paucity of information concerning the status of these students. It was not known what efforts were made to challenge their potential and to utilize school and community resources. Information regarding

the educational and employment histories of gifted vocational agriculture graduates was also scarce. The purpose of the study was to collect information regarding the present status of gifted students including enrollment, identification procedures, involvement in curricular and co-curricular activities, and career awareness activities available to gifted students in vocational agriculture classes. In addition, data regarding the educational and employment histories of gifted vocational agriculture garduates were gathered to aid in the better preparation of present and future gifted students in vocational agriculture.

Method. The sample for this study consisted of all agriculture teachers from Pennsylvania's high school agriculture departments and a random sample of 100 other vocational agriculture teachers in the United States, their school administrators, and the gifted students who had enrolled in vocational agriculture and who were graduated during 1974 to 1979. Data were collected through mail and telephone surveys.

Findings. This study revealed that the enrollment of gifted students in vocational agriculture classes had increased considerably in the last five years. However, these gifted students represented only a very small percentage (4% to 10%) of the total gifted student population in those schools. IQ tests and/or nomination by teachers were the most widely used methods by schools for the identification of gifted. Very few vocational agriculture teachers (6%) had ever taken an active part in the identification process even though the majority of teachers and administrators reported involving teachers in the identification process.

Individualized instruction and acceleration were the major curricular intervention activities used in schools by all teachers including vocational agriculture teachers. Very few vocational agriculture teachers (18%) reported conducting career awareness programs for gifted students before the gifted students enrolled in vocational agriculture. Teachers and administrators expressed a need for flexible and challenging programs and information on how to teach and attract gifted students into vocational agriculture. The survey revealed that a large percentage (27%) of gifted vocational agriculture graduates had not attended institutions of higher learning. Vocational agriculture teachers and special instruction received during the high school years were key factors in the gifted students' achieving satisfaction in their present occupations.

In conclusion, vocational agriculture can play a valuable role in the enrichment of gifted students. To keep the enrollment trend on the increase and to make vocational agriculture programs more meaningful to the gifted, vocational agriculture teachers and their programs need to adapt to the needs of gifted students.

PIZANI, Jose Jaime. "A Farmers' Needs Assessment as a Basis for the Development of a Pilot Agricultural Extension Program in Canoabo County (Venezuela)." Master of Science Thesis, 1981, The Pennsylvania State University, University Park.

Purpose. This study was conducted to assess farmers' needs in Canoabo County in Carabobo State, Venezuela, and identify the relationship between the programs that the Extension Services were offering and the expectations of the farmers of the area. A second purpose was to identify the extension programs which were currently serving the farmers in Canoabo. The purpose of the needs assessment was to obtain information for those official institutions, in particular Simon Rodriguez University, that would be available as a basis for the development of a future program in agricultural extension in Canoabo.

Method. The population for this study consisted of 65 farmers and six agricultural administrators. Two questionnaires were developed. The first questionnaire was administered to the randomly selected farmers to obtain background information relating to their level of education, size of farm, number of years in farming, age and type of production. The second questionnaire was developed to be administered to agricultural administrators of the selected institutions serving the area in the state of Carabobo. This questionnaire had questions to gather information on their position in the institution and how long they had been in that position, how many persons work under their responsibility, and how they plan to implement the programs that the institutions were developing. Statistical treatments included single classification analysis of variance (ANOVA) and correlation.

Findings. The following were among the major findings of this study: (1) there were no significant differences among the farmers of different age groups related to their needs or expectations; (2) there were highly significant differences among the farmers of different educational levels related to their needs or expectations; (3) there were highly significant differences among the farmers with different types of production related to their needs or expectations; (4) there were no significant differences between the needs or expectations of farmers with different size of farm; (5) there was a significant correlation between the expressed needs of farmers and the agricultural extension needs as perceived by the institutions; (6) there was not adequate programming in agricultural extension from the institutions in Canoabo, except from Simon Rodriguez University and Association of Coffee Producers, which are developing a few limited programs; (7) all the institutions considered in this study agreed on the point that it was necessary to develop cooperative programs in agricultural extension; (8) any agricultural extension program that could be developed in Canoabo must consider the following topics: disease, insect and weed control; irrigation and drainage; conservation and use of water; credit; marketing; cooperatives; rural construction; poultry; and citrus production; (9) Simon Rodriguez University, in conjunction with other institutions, must consider the development of cooperation agreements to carry on inter-institutional activities to cover the areas of agricultural production, land reform, health, communication, transportation, housing, community and human development, family planning, food and nutrition, and clothing.

The following recommendations were made based on findings from the study: (1) the development of extension programs in Canoabo must be based on the needs of the community in order to avoid an indifferent attitude and lack of cooperation on the part of extension clientele; (2) Simon Rodriguez University needs to develop cooperative programs in conjunction with National Agrarian Institute, National Institute of Agricultural Training, Ministry of Agriculture and Livestock, and Association of Coffee Producers in order to establish an adequate

system of credit and technical assistance and training; (3) Simon Rodriguez University should create an institute for farmer training in Canoabo County. The institute would serve adjacent zones and should stimulate research so as to serve as an incentive to agricultural enterprises currently being developed by Simon Rodriguez University; (4) given the influence of the educational level and type of production on the needs awareness of producers, separate evaluations of the different groups by levels should be conducted in order to determine the specific priorities for each group in an extension program.

TULLIO, Teresa Lee. "Development and Evaluation of a Sequential Slide Set and Script for Sheep Production Management Tasks." Master of Education Paper, 1981, The Pennsylvania State University, University Park.

Purpose. The purpose of this study was to develop and evaluate by a panel of experts a set of two-by-two inch color slides with script to illustrate each of 20 management task sheets included in Sheep Production Task Sheets (Diamond, 1980). The slides are designed to be used in conjunction with the task sheets for the purpose of teaching sheep management skills to youth and adults.

Method. Twenty management skills from Sheep Production Task Sheets were illustrated by two-by-two inch color slides. For each management skill, one slide was taken of the recommended resources needed, followed by slides depicting each element of the task. One slide series and script was developed for each of the 20 task sheets included in this study. Final evaluation of the slide series was done by a 15-member panel of experts. This panel included four animal science specialists, two audio-visuals/curriculum materials specialists, seven teacher educators and three graduate students in agricultural education.

Findings. Each of the 15 evaluators completed a form rating the slide series according to technical quality, content and utilization potential. According to the results of the evaluation of the Sheep Management Slide Series, the following suggestions were made: (1) the slide series would be appropriate for use in teaching sheep management skills to youth and adults; (2) the slide series stimulates interest in the subject of sheep management; (3) the slide series is suited to the subject of teaching sheep management skills; (4) additional work is needed to make the series as technically accurate as possible before being made available to the public; (5) overall reaction of the panel of experts to the slide series was very good.

RYND, David. "Comparison of Tillage Methods in Relation to Corn Yields." Master of Science Thesis, 1980, The Pennsylvania State University, University Park.

Purpose. No-tillage and minimum tillage methods are changing the traditional method of soil preparation for crop production. However, in Lawrence County, Pennsylvania, more than 90 percent of the corn grown is still being planted by conventional tillage methods. The Pennsylvania Agronomy Guide does not recommend the no-till method on heavy, poorly-drained soil. Northwestern Pennsylvania and particularly Lawrence County has a considerable amount of heavy soils that are poorly drained. A large percentage of farmers in Lawrence County have a negative attitude toward no-till cultivation.

Method. Four research plots were tested in Lawrence County in 1979, looking at the tillage/yield relationships. Tillage method resulted in no significant differences in yield. No significant difference in yield indicates an operational advantage for no-till or minimum-tillage since the production costs are about $10 per acre less with these two systems. In some cases, no-till showed an increase in yield over conventional tillage on some soil types of the lower productivity groups that are somewhat poorly drained. Research in Ohio and in Indiana supports these findings.

Obtaining valid research data is sometimes one of the least difficult steps in the educational process. A very real problem arises when the researcher or extension agent makes an attempt to present the information to the producers. In this situation, farmers must change attitudes and management practices that they have become accustomed to over a period of years. One of the most effective methods used in the educational delivery system is the demonstration plot. On-farm research planted for producer observation and evaluation or in conjunction with field days very effectively illustrates the results from different cultural practices. Further studies are needed to more accurately determine the tillage/yield relationships with various climatic conditions and soil types that have drainage problems in Western Pennsylvania.

Findings. This study found that on the two major soil types of the county, Canfield and Ravenna, there was no significant difference among the three tillage methods: no-till, minimum, and conventional. Therefore, farmers in Lawrence County, Pennsylvania, having these two soil types should see no significant difference in yield. Farmers should be able to incorporate no-tillage and minimum-tillage methods with their conventional-tillage method of corn production and maintain an equivalent corn yield.

WEILER, James. "Biological Control of the Cereal Leaf Beetle in Pennsylvania and Ohio for the Years 1977-1980." Master of Education Paper, 1981, The Pennsylvania State University, University Park.

Purpose. Since the first identification of the cereal leaf beetle (Oulema melanopus) in 1962 in Michigan, the pest has gradually spread eastward. Estimated yield losses from the pest ranged from 5 to 30 percent in oats. Early attempts at control were aimed at eradication with pesticides and preventing its spread by quarantine. Germ plasm was introduced to breed resistance into wheat. In 1975 biological control with parasitic wasps was tried in Ohio, followed by a similar program in Pennsylvania in 1976. The use of cereal leaf beetle field days to disseminate the parasites to many fields within a state in a day's time was repeated for several more years to insure the complete dispersion of the parasitic wasps in oat-growing regions of the states. The purpose of this study was to determine the effectiveness of the cereal leaf beetle parasite T. julis in 435 fields in the states of Ohio and Pennsylvania over a 4-year span, 1977 through 1980.

Method. The percent parasitism for the month of June was used to measure biological control effectiveness.

Findings. The results indicated that better than 50 percent of the cereal leaf bettle larvae were parasitized during each of the years in Pennsylvania and during two of the four years in Ohio. The present levels of parasitism through 1980 continue to provide biological control of the cereal leaf beetle. Assuming an eight percent savings of the oats crop in Ohio and Pennsylvania annually amounts to several million dollars saved by the farmers in each state. To the County Extension worker, the educational work of changing attitudes from spraying all insects to spraying only when economically justified and with protection for the parasite in mind has just begun. The time-proven methods of dissemination of extension information will continue to be used to impress upon farmers the need to monitor insect populations and utilize all methods of control in concert together.

RHODE ISLAND

ROBERTS, Herbert H. "A Personal Learning Experience Gained Through Developing and Administering A Self-Sustained Adult Education Program." Supervised field practicum, M.A., 1981. University of Rhode Island, Kingston.

Purpose. The purpose of this practicum was to gain knowledge and experience in the administration of a self-sustaining adult education program. To attain this goal, knowledge and experiences in the following areas were desirable: to develop and conduct a needs assessment survey; to conduct a follow-up of high school dropouts in an attempt to enroll these former students in a high school equivalency program; to write and submit a funding proposal; to develop a brochure; and to determine the effects of the cost of transportation and the sagging economy on adult education enrollment.

Method. The objectives of this practicum were achieved by (1) searching and reviewing literature concerning needs assessment surveys, (2) developing and conducting a needs assessment survey, (3) conducting a follow-up of high school dropouts and attempting to enroll these former students in a high school equivalency program, (4) writing and submitting a funding proposal to the Rhode Island Department of Education-Bureau of Vocational Technical Education, (5) developing and having printed a brochure containing course descriptions, and (6) conducting a survey to determine the effects of transportation cost and the sagging economy on adult education at Chariho, Richmond, Rhode Island.

Findings. The practicum provided the author with the opportunity to fulfill the objectives of the practicum and to incorporate the results of the objectives into the self-sustaining Chariho Adult Education Program. The program, the adults of the communities served and the author have benefited from the experiences gained.

TENNESSEE

CRAIG, David G. "A National Study of the Supply and Demand for Teachers of Vocational Agriculture in 1980." Staff Study, 1981, The University of Tennessee, Knoxville.

Purpose. The purpose of this study was to determine the nature and trends of the number and type of vocational teacher positions, and placement trends of agricultural education graduates.

Method. Mailed questionnaires were sent to all known institutions preparing teachers of vocational agriculture and offices of head state supervisors in agriculture. Data were collected regarding the type of teaching positions, placement of agricultural education graduates, and the nature of supply and demand of vocational agriculture teachers. Tabular results show mean, mode, range, frequency and percentage statistics for state, institution, region, and the nation as a whole. Selected trends were shown for a sixteen-year period.

Findings. There has been a shortage of vocational agriculture teachers during each year that the study has been conducted. In 1980, a total of 1,584 persons were qualified for teaching vocational agriculture, the lowest number in the last eleven years. Of those graduates, only 824 were placed in vocational agriculture teaching positions, also the lowest number so placed in the last ten years. Hence, there were 117 teachers still needed for employment, and 55 departments could not operate because of a lack of teachers.

Some other reasons for the short supply of vocational agriculture teachers are as follows: (1) an overall, steady increase of the number of secondary positions each year since 1974 (the number of post secondary positions has increased at an average rate of about 10 percent each year since 1971); (2) the regular turnover of teachers reached a high of 12.5 percent; and (3) the continued low migration of surplus or available teachers to shortage areas.

During recent years the number of persons in various types of teaching positions has been generally stable, as follows: (1) the largest number of teachers, 6,715 or 53.7 percent, taught high school classes only; (2) most teachers, 10,771 or 86.8 percent, taught in comprehensive high schools; (3) slightly more than one-half of the teachers taught in single teacher departments; and (4) almost one-half, 47.8 percent, taught part-time production agriculture and one or more specialized classes, while 33.5 percent taught in full-time production agriculture programs.

MONTGOMERY, Danny W. "A Study of Selected Factors Among Agricultural Education Programs in the United States." Master of Science Thesis, 1980, The University of Tennessee, Knoxville.

Purpose. To determine similarities and differences among agricultural education programs in the United States.

Method. Data were collected from chairmen of agricultural education programs of the 85 institutions where such programs are conducted. They were asked to respond to different parameters of their programs. A comparison was made of these parameters between land-grant and nonland-grant institutions, those administered in colleges of agriculture and those in colleges of education, and among institutions from different geographic regions in the United States. Responses were received from 76 institutions.

Findings. Major findings include the following: (1) Seventy-one percent of the programs were located in land-grant institutions; (2) Fifty-two percent of the programs were administered by colleges of agriculture, 33 percent by colleges of education, and 15 percent by some other organization; (3) Forty-three percent of the programs were located in the Southern, 24 percent in the Central, 17 percent in the Western, and 16 percent in the Eastern Regions; (4) Fifty-three percent of the programs had fewer than 60 majors with less than 20 graduates each year (only six programs had over 60 graduates per year); (5) There was an average of 187.3 quarter hours of course work required to complete the undergraduate agricultural education curriculum; (6) A master's program was offered in 76 percent of the programs and less than 20 percent of the institutions offered a doctoral program in agricultural education; (7) There was an average of three staff members per program; (8) On the average a staff member spent 56 percent of the time teaching, 17 percent in inservice, 10 percent in research, 4 percent in curriculum development, and 17 percent in performing other duties; (9) Staff in 15 percent of the programs received over $2,500 for travel for each member and 25 percent of the programs received less than $500 per member; (10) Sixty-five percent of the programs were reported to have an advisory committee.

TEXAS

Texas A&M University

BROWN, H. D., Grimes, J. P. & Briers, G.E. "Follow-up of Women Graduates in the College of Agriculture, Texas A&M University, 1974-79." Staff Study, 1980, Texas A&M University, College Station.

Purpose. The primary purpose of the study was to provide specific information relative to various aspects of the employment status of women having received their undergraduate degrees from the College of Agriculture at Texas A&M University during the five years from September, 1974 through August, 1979.

Method. The study was conducted in four stages. First, the subjects of the target population were identified and mailing addresses obtained from the Association of Former Students. Second, a questionnaire was developed to reflect the objectives of the study and to elicit responses from the subjects regarding their employment since graduation. Third, responses to the questionnaire were manually sorted by major departments, data transcribed from the completed questionnaires to key-punch coding sheets and computer cards were key-punched. Data were analyzed using Veldman's DISTAT program. Finally, the data were analyzed, arranged in tabular form, and interpretations made.

Findings. Major findings in the study include: (1) the number of employers for whom she had worked was not indicative of her annual salary; (2) annual salary was related to her perceptions of the contribution of her degree to her job responsibilities; (3) annual salary increased as the perceived relationship between degree and job increased; (4) her salary and her satisfaction with her job were related; and (5) her job satisfaction and her perceived degree-job relationship were interdependent. A job perceived as directly related to her degree was indicative of higher job satisfaction than was a job perceived as unrelated.

DILLINGHAM, John M. "The Association of Selected Characteristics with the Average Net Income from Supervised Project Programs of Production Agriculture Students in Texas High Schools." Doctor of Philosophy Dissertation, 1980, Texas A&M University, College Station.

Purpose. The purpose of this study was to determine if selected characteristics of production agriculture teachers, programs, communities, methods used for program development, and perceived values of supervised project programs as expressed by teachers were associated with the average net income from supervised project programs of production agriculture students in Texas.

Method. Data were obtained from questionnaires returned by production agriculture teachers who represented 275 of 300 departments--a 91.6 percent response rate--of a random sample selected from 900 vocational agriculture departments in which production agriculture was taught during the 1978-79 school year. Analysis of variance and chi-square analyses were used to test the null hypotheses at the .05 level of probability.

Findings. Major findings include: (1) Departments having teachers whose total tenure interval was 16-25 years had significantly higher net incomes than departments having other tenure intervals; (2) Departments in which none--00.0 percent--of the teachers had lived on a farm or ranch during their childhood had significantly higher average net income than departments having higher percentages of teachers who had lived on farms or ranches; (3) Male student enrollment was associated with average net income as departments with 16-30 male students in production agriculture programs had a significantly higher average net income from supervised project programs than did other enrollment categories; (4) Departments having diversified livestock and crop project programs had higher average net incomes from supervised project programs than departments having supervised projects which were basically livestock feeding or crop production projects; (5) Of twenty selected methods used to plan and develop supervised project programs, only the use of written records of visits to students was associated with average net income; and (6) Vocational agriculture teachers in departments with higher average net incomes agreed with greater frequencies than expected that projects help students learn to follow written directions, help students to determine self-employment opportunities, and help create and/or maintain students' home environments.

HOGUE, Kennith C., Carnes, John E., and Briers, Gary E. Identification of Emerging Occupations for Vocational Agriculture." Staff Study, 1981, Texas A&M University, College Station.

Purpose. The purpose of the study was to identify emerging jobs applicable to vocational agriculture. In addition to the identification of jobs, the study also involved collection of information on agricultural skill and knowledge areas essential to a beginning employee's success in the various jobs.

Method. A search of literature and personal interviews with employers were used to identify job titles relevant to vocational agriculture. The list of 619 job titles was incorporated into survey documents for agricultural employers and vocational agriculture teachers in Texas. Similarly, 33 broad knowledge and skill areas in agriculture were identified and placed on the survey instruments. Data as followed were collected from 245 agricultural employers: (1) Does the job title exist in your firm? (2) Would you hire a vo-ag trained individual in the job? (3) Which 10 (of the 33) knowledge and skill areas are most important to a beginning employee's success in your firm? In comparison, nearly 800 vo-ag teachers responded to: (1) Have you placed a graduate (or completer) of your vo-ag program in the job title? (2) What 10 knowledge and skill areas do you believe are most important in vocational agriculture?

Findings. Emerging jobs--those that had relatively high placement potential but low placements by teachers--included botanical garden/aboretum worker, smoke jumper, horticultural supply clerk, zoning compliance officer, fisheries technician, agricultural computer worker, and seafood butcher. All 619 jobs were ranked on their "emergence levels" based on the relationship between the number of employers who indicated they would hire a vo-ag trained person and teachers who indicated they had placed graduates in the positions; a job with many "would hire" indications and few placements was designated an emerging job. A comparison of the knowledge and skill areas showed that employers want new employees to be able to use (1) business practices, (2) interpersonal job skills, and (3) sales techniques while teachers emphasize (1) metal work, (2) safety practices, and (3) selecting livestock.

MOSS, Jeffrey W. & Webb, E.S. "Follow-up of Agricultural Education Graduates from Texas A&M University for the Years 1972-1975." Staff Study, 1981, Texas A&M University, College Station.

Purpose. A two fold purpose existed for conducting this investigation. One was to determine the effectiveness of the curriculum in Agricultural Education in preparing graduates for careers in agriculture. A second was to investigate the career patterns of TAMU agricultural education graduates.

Method. The population for this study included all of the TAMU agricultural education graduates for the period of 1972 through 1975. A questionnaire, closed form instrument, was developed using an instrument from an earlier follow-up study by Webb, et.al., as a guide. The data on most questions were collected from responses to questions utilizing a 5-point Likert scale.

Other items requested respondents to select the most appropriate response from a list of possible factors. Each questionnaire was coded so that the graduates might respond candidly to the questions asked. The mailing contained a cover letter explaining the purpose and need for the study, and a preaddressed, stamped envelope for its return. The data were compiled using Veldman's DISTAT program, arranged in tabular form, and interpretations made.

Findings. Three mailings resulted in a 76 percent return of usable questionnaires. Respondents were classified as current teachers, former teachers and non-teachers. Findings pertaining to the topic of undergraduate recruitment include: (1) Vocational agriculture teachers were considered the most influential by persons in all three groups--teachers, former teachers, and non-teachers --when selecting agricultural education as a college major; and (2) The most influential factor on the graduates' decision to major in agricultural education was "the desire to secure a broad knowledge of scientific agriculture." Findings pertaining to the topic of curricular offerings in agricultural education include: (1) Courses in agricultural economics, agricultural engineering, and animal science were perceived by the graduates as needing to be increased; and (2) Four areas; accounting, finance, management, and marketing, all of which are offered in the College of Business, were rated as "should be added" by a significant number of the graduates.

Texas Tech University

CEPICA, M. J. and PATE, Dennis C. "Factors Affecting Attrition of Students in the Production Vocational Agriculture Programs of Texas." Staff Study, 1981, Texas Tech University, Lubbock.

Purpose. There is an established enrollment trend in the production vocational agriculture program of Texas. The enrollment in Production Vocational Agriculture III and IV is lower than the enrollment in Production Vocational Agriculture I and II. The substantial loss of students from the production program is the problem investigated in this study. The primary purpose was to determine the reason or reasons students enroll in Production Vocational Agriculture I or Production Vocational Agriculture I and II and then elect to discontinue their vocational studies in Production Vocational Agriculture III and/or IV.

Method. In a random sample, two hundred vocational agriculture teachers within areas I, II and IV of Texas were contacted via mail and were asked to supply a list of students' names and addresses from their school, who within the last three years, had discontinued their production program before completing all production courses offered. A list of 300 students was obtained. These students were mailed a questionnaire designed to obtain the necessary data needed to answer the study objectives. A Statistical Analysis System (SAS, version 795) and a Statistical Program for Social Sciences (SPSS) program package was used in data analysis. The student sample was descriptively analyzed to determine frequencies and percentages of sexual groupings, racial groupings, and participation levels of the students. Other analyses related factors regarding student attrition from production vocational agriculture.

Findings. Students decide to discontinue the production vocational agriculture program for many reasons, however, the most prevalent reason determined within this study was scheduling conflicts with other high school classes. Other factors of importance which influence students to discontinue the production program were: students career goals in areas other than agriculture, students entering cooperative part-time training, and SOEP requirements. When developing a yearly schedule of classes, high school administrators and teachers should consider conflicting classes to enable students to enroll in classes which meet their needs and interests. Schools should increase utilization of student interest inventories. Vocational agriculture teachers should have planned career units of instruction incorporated in their Vocational Agriculture I curriculum and vocational agriculture teachers must consider each student's interest and personal situation when counseling a student regarding supervised occupational experience programs.

STOCKTON, Jerry D. "Determining Vocational Agriculture Teachers' Attitudes with Regard to Their High School Students Selection of a College of Agricultural Sciences." Staff Study, 1979, Texas Tech University, Lubbock.

Purpose. The purpose of the study was to determine attitudes exhibited by vocational agriculture teachers when advising their vocational agriculture students as to which college or university to attend.

Method. A questionnaire was mailed to 367 vocational agriculture teachers in North and West Texas. Demographic data regarding vocational agriculture teachers was collected as well as teacher attitudes concerning high school students choice of a university. Information was secured from teachers as to improved methods of students recruitment. Descriptive statistics was used in treatment of data.

Findings. Major findings include: 1) demographic data regarding teacher age, degrees earned, and number of high school students counseled, 2) teacher attitudes concerning high school students choice of a university, 3) a ranking of departments within the College of Agricultural Sciences according to high school students ranked by teachers, and 4) ranking of recruitment techniques as perceived by vocational agriculture teachers.

UTAH

TORGERSON, Jim L. "A comparison of the Perceptions of Agricultural Professionals in Utah's Production Agriculture and at Utah State University of the Competencies Required of Agricultural Students Entering the Job Market." Master of Science Thesis, 1981, Utah State University, Logan.

Purpose. To determine how closely the perceptions of farm producers and agricultural university professors were regarding the importance of selected agricultural competencies and their perceived contribution to each competency made by the classes taught by each faculty member.

Method. The target population was sixty-three teaching faculty members of the college of Agriculture, Utah State University, and one hundred fifty-six Utah farmers nominated by extension agents and vocational agricultural teachers. A mailed questionnaire was sent to all teachers. Fifty-six of the sixty-three professionals contacted filled out the survey for an 89 percent return.

Findings. Responses from the fifty-six professionals were compared to the responses of one hundred fifty-six farmers to find that:

1. One -hundred-fourteen of the one-hundred-eighteen competencies surveyed in this study were considered to be of some importance to Utah's farmers in production agriculture by the agricultural professionals at Utah State University.

2. One-hundred-sixteen of the one-hundred-eighteen competencies surveyed in this study received some level of course contribution in the courses taught by the agricultural professionals at Utah State University.

3. Seventy of the one-hundred-eighteen competencies surveyed in this study were considered to be important to very important to Utah's farmers in production agriculture by the agricultural professionals at Utah State University.

4. Forty-seven of the one-hundred-eighteen competencies surveyed in this study received a high to very high level of course contribution in the courses taught by the agricultural professionals at Utah State University.

5. Of eighty-one competencies on the Animal, Dairy, and Veterinary Science department survey the agricultural professionals at Utah State Universtity had a significant difference on twenty-six competencies but only six of those were rated lower than the farmers rating in Utah's production agriculture.

6. Of the twenty-five competencies on the Agricultural Economics department survey the agricultural professionals at Utah State University had a significant difference on eleven competencies but only two of those had a lower rating than the farmers rating in Utah's agricultural production.

7. Of thirty-three competencies on the Plant, Soil, and Biometeorology department survey the agricultural professionals had a significant difference on twelve competencies but only two of those had a lower rating than the farmers rating in Utah's agricultural producation.

8. The Nutrition and Food Science department had significant differences on two competencies. In both cases the Nutrition and Food Science department had a higher rating than the farmers rating in Utah's agricultural production.

9. The Agricultural Mechanization department at Utah State University also had a comparison of means with the Utah farmers. Because of the low number of professionals (N) in the department a valid t-test could not be accomplished.

10. There was no significant difference at the .05 level, generally, in the comparisons between the farmers in Utah's agricultural producation (Summers, 1980, Pages 22-38) and the agricultural professionals at Utah State University in the perceived importance of selected agricultural competencies. But, the perceived importance level of agricultural compentencies by the agricultural professionals was not being matched by the perceived level of course contribution.

JENSEN, Jim C. "A Study To Determine Desirable Employee Competencies and Manpower Needs For The Utah Farm Implement Industry." Master of Science Thesis, 1981, Utah State University, Logan.

Purpose. To assess the manpower needs and desirable employee competencies for the Utah Farm Implement Industry.

Method. Personal interviews of the Utah Farm Implement Dealerships (50) were conducted by the writer. One dealer refused to respond.

Findings. Major Findings include:

1. On a scale of 0 to 4 with 0 meaning the skill "did not apply", 1 meaning the skill was "not important", and 2 meaning it was "of some importance", 3 meaning it was "important", and 4 meaning the skill was "essential", twenty-eight of the thirty Agricultural Mechanics competencies measured in the survey were rated at least "of some importance" (mean score greater than 2) to entry level workers. The other two competencies were close with mean scores of 1.898 and 1.878 respectively.

2. The most important, technical competency was found to be the ability to perform preventive maintenance on agricultural equipment systems. This skill received a mean ranking of 3.673.

3. The least important competency as defined in this study was found to be the ability to use surveying equipment and do surveying. This skill was given a mean ranking of 1.878.

4. Of the 21 agribusiness/interpersonal competencies measured in the survey, all were said to be at least "important" with the lowest mean score being 3.082.

5. Desirable personal qualities such as honesty, sincerety, etc received the highest ranking of the agribusiness/ interpersonal skills with a mean score of 3.826.

6. Knowing about advertising and promoting the sale of equipment received the lowest ranking of the interpersonal skills, but it should be pointed out that the mean of 3.082 is still above the "important" rating.

7. There is a predicted 20.35 percent increase in full time employees and a 15.87 percent increase in part time employees in the two-year period of 1979 to 1981.

8. There was a 57 percent industry awareness of the agricultural equipment/machinery technology program offered by Utah State University.

9. The Study also indicated 94 percent of the dealers preferred workers presenting specific job competencies at job entry.

EKPE, Ekpeni "Some Effects of Crossbreeding on Reproductive and Productive Performance of Meat-Type Goats and Their Use in Production Programs in Nigeria". Master of Science Thesis, 1981, Utah State University, Logan.

Purpose. The purpose of this study was to investigate some of the effects that crossbreeding-- an intensive method-- might have on reproductive and productive performance of straightbred Spanish (meat-type) does. This genotype was compared to the crossbred (Spanish X dairy) goats on the basis of body weight, fertility and prolificacy, and variables associated with their kids. Findings in this and other studies will be expected to contribute to general knowledge and serve as practical tools for goat production in Nigeria.

Method. This research was designed and carried out to measure reproductive and productive performance in the straightbred Spanish and Spanish X dairy goat as well as the birth weights and subsequent growth rates of the kid crosses. Comparisons were made between the two breeds or genotypes on the basis of 1) doe body weights at prebreeding and postpartum, fertility, and prolificacy;and 2) kid birth weights, sex, type of birth, pre-and post weaning body weights at monthly intervals, and feeding and carcass merit. Data for this part of the study were collected from 1978-1980 on a total of 142 does and 130 kids. The second part of the study involved the development of management and extension lesson plans for goat production through careful review of related literature.

Findings. Major findings include:

1. Significant differences in doe prebreeding and postpartum weights due to the effects of year ($p < .001$) and genotype ($p < .005$);

2. Differences in percent fertility mainly due to age of dam ($p < .05$);

3. Differences in male and female kid body weights at birth mainly due to genotype, date of kidding, and year ($p < .001$), and type of birth ($p < .005$);

4. Differences in kid body weights at weaning (5 months) due mainly to year ($p < .001$), genotype ($p < .005$), and type of birth ($p < .05$).

VIRGINIA

CAMP, William G. "Determination of Competencies for Inclusion in the Pre-service Agricultural Education Program at Virginia Tech." Staff Study, 1981, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

Purpose. The purposes of the study were as follows: (1) update and validate for Virginia, previous listings of competencies needed by vocational agriculture teachers; (2) develop a subset of competencies to include in the preservice teacher training program in agricultural education at Virginia Tech; (3) group selected competencies into existing undergraduate courses; (4) convert the required agricultural education undergraduate course-work to a competency-based approach.

Method. The initial competency listing was based on work reported by Richardson, et.al., in a Purdue University study dated 1976. The listing was submitted to university and state staff members for changes, deletions and additions to adapt it to Virginia needs. The revised listing consisted of 145 competencies. The list was submitted to the following groups for rating: Virginia Tech teacher education staff, state supervisory staff members, teacher advisory council (consisting of agriculture teachers from throughout the state), recently completed student teachers, and a selected group of agricultural education undergraduates. Respondents rated each competency on a scale of 1 to 5, where 1 = essential for undergraduate agricultural education curriculum and 5 = not needed in undergraduate agricultural education curriculum.

Item rankings were summarized for each respondent group and for the overall group. The competencies were then ranked according to the faculty rating summaries and according to the overall rating summaries. The ranked competency lists was given to each faculty member with the instruction to vote "yes" or "no" for the inclusion of each item in the undergraduate curriculum. A summary of the yes/no votes for each item was then prepared.

At a full day planning retreat the entire agricultural education faculty reviewed the ranked competencies item by item and developed a consensus list of 50 competencies to retain. The retained competencies were then placed by consensus in appropriate existing undergraduate courses.

Findings. Surprisingly, it was possible to reach consensus on this very tricky question among our faculty members. As a result of this study/project the pre-professional training program in agricultural education underwent major and fundamental revision. A side effect was the removal of lower priority instructional units from each course and overlapping instruction amont courses. The required undergradaute pre-professional courses in agricultural education were converted to a competency based approach.

CLOUSE, James P. "Curriculum Materials Development In Agricultural Education." Staff Study, Virginia Polytechnic Institute and State University, Blacksburg.

Purpose. The purpose of the project was to develop and publish or purchase selected technical agriculture and professional agricultural education materials for use by the agricultural education teachers in Virginia.

Method. Decisions concerning what materials to develop and/or purchases were made by the joint agricultural education supervisory and teacher education staffs. Faculty members of the College of Education and the College of Agriculture and Life Sciences at VPI & SU, wrote the publications to be developed.

The materials to be purchased were obtained from recognized agricultural education curriculum materials centers or established publishers and/or distributors.

The developed and purchased materials were or will be disseminated at area meetings, at special teacher meetings or at the Virginia Agricultural Education Teachers' Annual Conference.

Findings. Through this project 23 Learning Activity Packages and Publications were prepared for use by the teachers of agriculture in Virginia.

In addition, sufficient copies of different publications were purchased for distribution to the agricultural teachers in the state. Through the development and dissemination of these materials, the profession was helped and improved in the following ways: (1) Improving technical instructional content; (2) Providing individual student material for use in supplementing the instruction provided by the teacher; (3) Improving the management and organization of a department of agricultural education; (4) Assisting teachers in the improvement of the profession and in meeting their professional responsibilities.

CLOUSE, James P. "The Status of Preservice Preparation Training Programs Concerning Vocational Advisory Councils and The Preparation of Teachers and Administrators To Work With Such Councils," Staff Study, Virginia Polytechnic Institute and State University, Blacksburg.

Purpose. The purpose of this study was to determine what is being taught by the institutions of higher education in Virginia concerning vocational advisory councils and the preparation of teachers to work with such committees. In addition selected groups of people were asked what they believed should be taught about vocational education advisory councils.

Method. A mail survey form was used with the head teacher educators in the institutions of higher education that prepare vocational teachers in Virginia, vocational teacher educators, local directors of vocational education and a sample of vocational teachers in Virginia.

Findings. Responses from 10 head teacher educators, 25 teacher educators, 65 vocational directors and 191 teachers of vocational education provided information about what is being taught and what should be taught concerning vocational education advisory councils. All groups agreed that more needs to be taught with the local vocational directors responding in the most positive way to nine of the twelve items.

HILLISON, John. "An Analysis of Verbal and Nonverbal Communication on Teaching Effectiveness." Staff Study, Virginia Polytechnic Institute and State University, Blacksburg.

Purpose. The major purpose of the study was to examine an analysis of both verbal and nonverbal communication as used by pre-service agricultural education students.

Method. The subjects for the study were juniors and/or seniors in the Virginia Tech Agricultural Education Program. Data were collected from videotapes subjects made while they were enrolled in the junior level introductory class, the methods class and student teaching. Project staff members coded verbal interaction, nonverbal interaction and assigned a grade to each video tape. The data were analyzed by use of correlation coefficient and stepwise regression.

Findings. It was found that pre-service students become more indirect in their teaching style as they progressed through the program. Subjects also used more positive nonverbal communication as they progressed through the program. The use of questions by subjects influenced the dependent variable of the assigned grade more than any other code. For the nine variables accounting for the most various five were verbal and four were nonverbal.

SNODGRASS, H. M. "The Job Satisfaction of State Officials with Responsibilities for Programs of Vocational Education in Agriculture: A National Study." Doctor of Education Dissertation, 1981. Virginia Polytechnic Institute and State University, Blacksburg.

Purpose. The purposes of this study were to develop a descriptive profile of incumbent state officials with responsibilities for programs of vocational education in agriculture, to determine the intrinsic and extrinsic job facets within the occupation which contribute to job satisfaction and dissatisfaction and to establish the relationship of selected personal and situational characteristics to the level of job satisfaction.

Method. The study was national in scope and included 209 state officials employed by 51 state departments of education within the continental United States and Puerto Rico. A three-part instrument was used to collect data. Part I of the instrument solicited information relative to selected personal and situational characteristics of the participants. Part II provided a measure of satisfaction with specific extrinsic and intrinsic facets of the work situation. Part III of the instrument provided a measure of overall satisfaction with the job. Frequencies, means, standard deviations and multiple regression were used to analyze the data.

Findings. Major findings include: (1) the development of a descriptive profile of incumbent state officials with responsibilities for programs of vocational education in agriculture; (2) the establishment of the relationship of selected personal and situational characteristics to overall job satisfaction; (3) the determination of state officials level of satisfaction with specific extrinsic and intrinsic facets of the work situation and (4) the establishment of the relationship of specific intrinsic and extrinsic facets of the work situation to overall job satisfaction.

WASHINGTON

ANDERSON, Jay Lynn "The Greenhouse Business" (A Vocational Game in Ornamental Horticulture). Master of Science, Non-thesis, 1981. Washington State University, Pullman.

Purpose. The purpose of this study was to design an instructional tool, both motivational and educational, intended to increase the variety of instructional strategies available to vocational ornamental horticulture educators.

Method. A commercial greenhouse business game was developed suitable for use by secondary level vocational ornamental students. The study was intended to assist agricultural educators in improving their curriculum and motivating their students.

Findings. This instructional tool was designed as a model of the greenhouse business industry. It was tested in several school districts and the results indicated a positive and motivational effect on participants. The instructional game is intended to supplement other instruction in the vocational ornamental horticulture classroom.

MILLIKEN, Dennis G. "A Teacher's Guide for the Preparation and Implementation of Agricultural Mechanics Contests." Master of Science, Non-thesis, 1981. Washington State University, Pullman.

Purpose. The purpose of the study was to develop materials necessary to vocational agriculture instructors desiring detailed information on conducting agricultural mechanics contests and preparing their students for these contests.

Method. The writer developed sample multiple choice and multiple choice problem solving questions for each of the fifteen understanding section headings outlined in the National FFA Agricultural Mechanics Contest. In addition, procedural information necessary to the preparation and implementation of successful agricultural mechanics contests was developed. Resources recommended by the National Future Farmers of America organization were surveyed to reveal instructional materials that were both current and applicable to the subject matter.

Findings. The intent of the study was to increase the number of FFA Chapters competing in state and local agricultural mechanics contests. In addition, the level of student and team preparedness and quality of individual skills, knowledge and problem solving ability was a goal. Materials will be reproduced and made available to teachers throughout the state.

SIKHI, Abdul H. "Agricultural Mechanization in Iraq with Suggestion for Program Improvement within the Educational System." Master of Science, Non-thesis, 1981, Washington State University, Pullman.

Purpose. The purpose of this study was to develop a suggested syllabus for a program in agricultural mechanization for full-time enrolled students in the Institute of Agricultural Technology at the Foundation of Technical Institute, Baghdad, Iraq.

Method. The development of this program was based on a review, analysis, and evaluation of four program development models. Consultations were held with specialists in the Department of Vocational Education, Adult Continuing Education, and the Department of Agricultural Engineering at Washington State University.

Findings. The author plans to recommend the program to his superiors in Iraq. It is hopeful that it will be accepted and implemented at the Institutes of Agricultural Technology in Iraq.

WALLACE, Dennis L. "A Self Contained Parliamentary Learning Activity Limit for Vocational Agriculture Students in the State of Washington." Master of Science, Non-thesis, 1981, Washington State University, Pullman.

Purpose. The purpose of this study was to develop a self-contained unit on parliamentary learning activities. It is intended to help both vocational agriculture instructors and students incorporate parliamentary skills and usage into an individualized learning package.

Method. The Author conducted a search for available materials through ERIC and existing curriculum guides. The study was developed with input from vocational educators at all levels. It was designed to be a supplementary unit to the teacher's guide that corresponds to the STUDENT HANDBOOK-FFA unit that deals with parliamentary procedure. The study was based on the premise that students have had initial instruction of basic parliamentary skills.

Findings. Basic materials were distributed to teachers of vocational agriculture to use in preparing students in parliamentary usage. All participants indicated real benefit especially to teachers lacking knowledge dealing with correct parliamentary usage.

WEST VIRGINIA

MANNENTO, Joas, E. "Major Problems Which Hinder Adoption of Agricultural Innovations by Farmers as Perceived by State Extension Directors and County Agent Association Presidents." Master of Science Thesis, 1980, West Virginia University, Morgantown.

Purpose. The objective of this study was to determine major problems which hinder the adoption of agricultural innovations by farmers.

Method. A modified delphi approach was used to collect data. Participants were contacted and asked to identify the five major problems which, in their opinions, most seriously affect adoption of agricultural innovations by farmers. Responses were used to formulate 63 questionnaire statements which were then rated by the same populations.

Findings. Participants viewed economic factors to be the greatest hinderance in adoption of new practices. High interest rates, inflated production costs, low commodity prices, government interference and regulation, and the shaky national economy were considered to be serious problems.

REASER, William. "Values to be Derived From Prevocational Education as Perceived by Students Currently Enrolled at Ritchie County High Schools." Master of Science Thesis, 1981, West Virginia University, Morgantown.

Purpose. The purpose of this study was to determine the importance of prevocational career exploration as part of a successful vocational program.

Method. Questionnaires were designed to gather data pertaining to factors associated with making career choices. Juniors and seniors at the two high schools in Ritchie County rated subjects, teachers and other influences related to educational and occupational decisions.

Findings. Data revealed that prevocational career exploration classes improves vocational class enrollment, provides additional class choices for students, and provides students with valuable career selection information. The majority of Ritchie County students make their occupational choices during their freshman or sophomore years. Parents, relatives and friends influence occupational choice more than teachers.

SHRIVER, Mary Ellen. "A Study to Determine Effectiveness of the Curriculum Guide, Exploring Agribusiness and Natural Resources, in Attitudinal and Career Awareness Changes." Master of Science Thesis, 1980, West Virginia University, Morgantown.

Purpose. This study was designed to determine if career awareness and attitudinal changes occur in ninth grade students as a result of exploratory studies in which the guide, Exploring Agribusiness and Natural Resources, was used as the course of study.

Method. Pretest and posttest scores on instruments designed to measure agricultural awareness, image and interest were compared. Two groups of ninth grade students (a total of 37 students) enrolled in a prevocational class made up the sample.

Findings. Students have more positive feelings about agricultural occupations after having completed the exploratory exercises in the guide. It was concluded that (1) interest in agricultural occupations decreases as a result of exploratory studies, (2) sex is not a factor in student reaction to agricultural occupations, and (3) exposure to exploratory exercises increases student ability to recognize occupations in agriculture and natural resources.

WYOMING

ANDERSON, Dwayne A. "Factors Influencing Membership in the Future Farmers of America in Wyoming." Master of Science Thesis, 1980, The University of Wyoming, Laramie.

Purpose. The purpose of the study was to determine why students joined the FFA or did not join based on a variety of people and things that influenced this decision.

Method. A survey instrument was disseminated and collected by the State FFA Officer through chapter visitation and equal number of vocational agriculture students that were FFA members and non-members and the vocational agriculture teacher were used in the study.

Findings. Included a profile of members and non-members, 2/3 members lived on farms and ranches, 3/4 non-members did not live on farms or ranches. Forty-nine percent members and 15 percent non-members had established a career goal in agriculture. People influencing membership and non-membership were the individual, teacher, parent, and peers. The things that influenced membership and non-membership were career goals, interest, and competitive activities.

BALDASSARE, Joseph A. "A Study to Determine the Nature and Costs of Student Travel in Vocational Agriculture Programs in Wyoming." Master of Science Thesis, 1981, The University of Wyoming, Laramie.

Purpose. The purpose was to determine the methods of funding and costs of student travel for Vocational Agriculture departments in Wyoming.

Method. A questionnaire was developed and mailed to all the Vocational Agriculture departments in Wyoming. Teachers were asked to report the number of students enrolled, miles traveled by students, distribution of sources of travel monies, activities which were school supported, per diem rates for students and teachers, student expenses covered while on trips, mileage limits imposed and use of department pickup trucks. Data from the questionnaires were summarized and averages were reported where possible.

Findings. Over one-half of the departments surveyed averaged over 4,000 miles of student travel. Sixty-eight percent of student travel funds were provided by school districts. FFA chapters were responsible for contributing 24 percent of student travel funds. Fifty-eight percent of the programs surveyed had access to a pickup truck for departmental use. Of those teachers responding, 97 percent indicated they were reimbursed for the use of their personal vehicle. Major trips, conventions and competitive functions received more support from school districts than did local field trips and fairs.

BURCH, Kelly J. "An Assessment of the Young Farmer and Rancher Educational Program in Wyoming." Master of Science Thesis, 1981, The University of Wyoming, Laramie.

Purpose. The intent of this study was to determine the effectiveness of the organization of Young Farmers and Ranchers and the educational portion of the program.

Method. A questionnaire was developed and mailed to fifteen members in each of six Young Farmer and Rancher chapters in Wyoming. A fifty-seven percent response was obtained from the ninety members that were selected at random. Among items included in the questionnaire were: (1) reasons for joining the organization, (2) involvement of the local voag teacher, (3) ways of improving the local chapter, (4) areas of instruction desired, and (5) role of the state advisor. Data were compiled and summarized for each item on the survey form.

Findings. Much of the data received provided valuable information for planning improvements in the organization of chapters and the educational program. Ninety-six percent of the Young Farmers and Ranchers stated that they joined local chapters because of the educational benefits. Over 17 percent of those responding felt their friends did not join because of a lack of awareness of the educational benefits. Almost 40 percent of those who missed meetings stated that they did not attend because of lack of interest in the topic being offered. When asked about the number of social functions preferred per year, 34.8 percent preferred two functions, while 32.6 percent preferred three functions. Seventy-eight percent of the respondents indicated they were satisfied with the number of social functions provided through the Young Farmer and Rancher program. When asked to evaluate the educational program, 79.5 percent of the respondents indicated the programs were challenging; 20.5 percent said they were not. As to thoroughness, 74 percent indicated yeas and 26 percent said no. With regard to areas of instruction requested, 31.2 percent desired courses on management and farm and ranch law, 16.2 percent wanted topics on beef production, and 12.3 percent were interested in farm mechanics subjects.

HEROLD, Alan R. "Developing a Safety Checklist for Vocational Agriculture Programs in Wyoming High Schools." Master of Science Thesis, 1981, The University of Wyoming, Laramie.

Purpose. The purpose was to develop a checklist and determine its use as a self-administered instrument that vocational agriculture teachers would accept.

Method. Information from sample checklists from several western states and the safety literature were utilized to develop a safety checklist. A panel of experts reviewed the checklist to validate the levels of standards and completeness. A pilot test was conducted with three teachers to determine the instrument's acceptability as a self-administered form. After revision, the checklist was administered in one-half of the departments in the State.

Personal interviews were conducted by the researcher with the teachers at each site. Percentiles were tabulated on each item as to meeting or not meeting standards. In addition, the percentage of teachers recommending acceptance, rejection, or change on each item was reported. Upon completion of the data collection and analysis, the checklist was revised and final copies were distributed to all departments in the State.

Findings. Mean percentages of teachers marking acceptability, rejection and change were calculated for each item. An overall mean was also determined for the checklist. Of the seventy items on the checklist, the mean acceptance level was 88 percent. The mean rejection level was 8 percent and a 4 percent level was determined for recommending change of the items. Those items which several teachers recommended change were reviewed in the final checklist. In addition, it was reported that the overall mean for the items on which the standards were met was 52 percent.

PARHAM, Arthur A. "Determining Standards for Quality and Performance in Vocational Agriculture Departments in Wyoming." Master of Science Thesis, 1980, The University of Wyoming, Laramie.

Purpose. The purpose of the study was to determine the extent that vocational agriculture programs were meeting the standards of quality and performance in the areas of instruction and experience programs, leadership, public relations, facilities, counseling, staffing, administration, funding, placement and evaluations.

Method. A survey instrument developed by teachers, state supervision and teacher education was used by the State coordinator. All data were based on visitation and personal interview.

Findings. The strengths of the vocational agriculture programs were reflected in the instructional program, student-teacher ratio, and public relations, areas reflecting weaknesses were placement, evaluation, facilities and equipment.

PARKER, Thomas L. "The Competencies and Skills Required to Teach Agricultural Mechanics in Wyoming." Master of Science Thesis, 1980, The University of Wyoming, Laramie.

Purpose. The purpose of this study was to determine the competencies needed by vocational agriculture mechanics teachers in areas of tool, metal, woods, power machinery, and soil management.

Method. A survey instrument to all teachers of vocational agriculture was used to secure the basic data utilizing suggested agricultural mechanics programs.

Findings. Major findings included a list of skills and competencies needed by vocational agriculture teachers. Facilities, equipment and budgets were major limiting factors on scope of agricultural mechanics.

STUDIES IN PROGRESS
1981-82

ARIZONA

FADL EL SEED, Bakhita. "An Analysis of Needs in Education and Water Sanitation for a Selected Area of Rural Sudan." Master of Agricultural Education Research Paper, The University of Arizona, Tucson.

JACOBS, C. O. "Model/Unit Instructional Concept for Teaching Basic Operating Principles of Agricultural Mechanics." Staff Study, The University of Arizona, Tucson.

JACOBS, C. O. "An Air Recharge for the Exhaust System of School Welding Laboratories." Staff Study, The University of Arizona, Tucson.

MAATOUG, Mirghani A. "Extension Demonstration Farms as Teaching Tools in Sudan." Master of Science Thesis, The University of Arizona, Tucson.

MCCORMICK, Floyd G. "Materials for Students of Varying Reading Abilities." Staff Study, The University of Arizona, Tucson.

ZURBRICK, P. R. "Update of Occupational Opportunities in Agriculture in Selected Areas of Arizona." Staff Study, The University of Arizona, Tucson.

ZURBRICK, P. R. "Occupational Follow-up of Vocational Agriculture Program Completers in Arizona." Staff Study, The University of Arizona, Tucson.

ZURBRICK, P. R. "Follow-up of Agricultural Education Graduates, University of Arizona." Staff Study, The University of Arizona, Tucson.

ZURBRICK, P. R. "The Current Status of Experiential Education in Vocational Education in Agriculture Programs." Regional Staff Study, The University of Arizona, Tucson.

CALIFORNIA

BOLT, Randee L. "A Determination of Horticulture Teacher Competencies Needed by Southern California Vocational Agriculture Teachers", Master of Science Thesis, California State Polytechnic University, Pomona.

BRANDENBURG, Mark J. "A Ten Year (1970-1980) Follow-Up Study of Credentialled Teachers - California State Polytechnic University, Pomona", Master of Science Thesis, California State Polytechnic University, Pomona.

DRAKE, James A. "Greenhouse Insulation". Master of Science Thesis, California State Polytechnic University, Pomona.

OLUMIDE, Adeyinka. "The Impact of Certified Farmers' Market on Consumers and Growers in Southern California". Master of Science Thesis, California State Polytechnic University, Pomona.

RODRIGUEZ, Inmaculada. "Frost Protection of Citrus Trees by Ice-Nucleation-Active Bacteria Control". Master of Science Thesis, California State Polytechnic University, Pomona.

ZAOUK, Salim. "A Study of the Relationship Between Hot Weather and Milk Production". Master of Science Thesis, California State Polytechnic University, Pomona.

COLORADO

McCALL, Dale E. "Determining the Current Status of Supervised Occupational Experience Programs in Colorado." Doctor of Philosophy Dissertation, Colorado State University, Fort Collins.

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TABLE I

LOCATION OF PREVIOUS REGIONAL SUMMARIES OF STUDIES IN AGRICULTURAL EDUCATION

ON MICROFICHE IN THE ERIC SYSTEM

1968 - 1974*

	Regions			
Year	Central	North Atlantic	Pacific	Southern
1968-1969	ED 036 642	-	ED 036 635	ED 038 543
1969-1970	ED 047 107	ED 047 108	ED 147 110	ED 047 109
1970-1971	ED 057 252	ED 061 415	ED 061 447	ED 061 446
1971-1972	ED 076 800	ED 107 904	ED 078 164	ED 079 472
1972-1973	ED 103 694	ED 107 903	ED 109 376 (1972-1974)	ED 110 745
1973-1974	ED 110 660	ED 110 792		ED 110 746

*Documents with ED numbers may be found in any complete ERIC collection of ERIC microfiche or ordered from EDRS, P.O. Box 190, Arlington, Virginia 22210.

The Summaries of Research and Development Activities in Agricultural Education were compiled nationally for the first time in 1974-75. Data pertaining to location of previously compiled national summaries may be found displayed on Table II.

TABLE II

LOCATION OF PREVIOUS NATIONAL SUMMARIES OF STUDIES IN AGRICULTURAL EDUCATION

ON MICROFICHE IN THE ERIC SYSTEM
1974 - 1979*

Year	Microfiche Number
1974-1975	ED 114 635
1975-1976	ED 134 707
1976-1977	ED 151 532
1977-1978	ED 167 781
1978-1979	ED 187-894
1979-1980	ED205 706

*Documents with ED numbers may be found in any complete ERIC collection of ERIC microfiche or ordered from EDRS, P.O. Box 190, Arlington, Virginia 22210.

PREVIOUS COMPILERS AND EDITORS

Summaries of Research and Development Activities in Agricultural Education United States of America

1974-1975	Dr. J. David McCracken, The Ohio State University
1975-1976	Dr. J. David McCracken, The Ohio State University
1976-1977	Dr. Alfred J. Mannebach, The University of Connecticut
1977-1978	Dr. Alfred J. Mannebach, The University of Connecticut
1978-1979	Dr. Jimmy G. Cheek, The University of Florida
1979-1980	Dr. Jimmy G. Cheek, The University of Florida
1980-1981	Dr. Joe W. Kotrlik, Louisiana State University